





The photo shows the model KE-4242/UC.

ORDER NO. CRT 1095

CASSETTE CAR STEREO WITH FM/AM ELECTRONIC TUNER

### KE-4242 0 KE-4515 0s

NOTE: This service manual is designed to be used together with Model KE-3232/UC Service Manual (CRT1090). Refer to it for finding parts numbers and circuit description, etc. which are not shown in this manual.

### **SPECIFICATIONS**

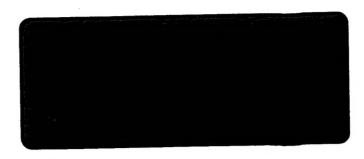
General

General	44 4 V DC (40 C 45 C V allowable)
Power source	14.4 V DC (10.8 — 15.6 V allowable)
Grounding system	Negative type
May current consumption	Z.5 A
Dimensions (chassis)	170(W) × 50(H) × 130(D) mm
	16-3/4/W) X 2(H) X 5-1/8(D) In.I
(nose)	$105(W) \times 42(H) \times 36(D)$ mm
(11000)	$[4-1/8(W) \times 1-5/8(H) \times 1-3/8(D) \text{ in.}]$
Chaft intomol	130 or 147 mm (5-1/8 or 5-3/4 in.)
Mai-i-ha	1.5 kg (3.3 lbs.)
weight	to kg (o.o ioo.)
Amplifier	
Continuous power output is 3.2 W	per channel min. into 4 ohms, both
channels driven 50 to 15,000 Hz w	ith no more than 5% THD.
Maximum nower output	8.5 W × 2/ / W × 4 (EIAJ)
Load impedance	4 \( \text{(4} - 8 \( \text{2} \) allowable)
Maximum output level/output imr	pedance (RCA) 500 mV/100 Ω
Tana controls (bass)	±10 dB (100 Hz)
Tone controls (bass)	±10 dB (10 kHz)
(treble)	10 dB (100 Hz) (volume: -30 dB)
Loudness contour	+8 dB (100 Hz) (volume: -30 dB)
Tape player	
Tane	Compact cassette tape (C-30 - C-90)
Tana speed 4.76 cm	1/sec. (+0.14 cm/sec., -0.05 cm/sec.)
Fact forward/rewind time	Approx. 100 sec. for C-60
Marie P. Huttor	U.13% (VVNIVIS)
VVOW & Hutter	Metal: 50 - 17,000 Hz (±3 dB)
Frequency response	Normal: 50 — 14,000 Hz (±3 dB)
	45 dB
Stereo separation	
Signal-to-noise ratio	52 dB (IHF-A network)

FM tuner Frequency range Usable sensitivity 50 dB quieting sensitivity Signal-to-noise ratio Distortion Frequency response Stereo separation	12 dBf (1.1 μV//5Ω, mono) 17 dBf (1.9 μV/75Ω, mono) 70 dB (lHF-A network) 
Selectivity  AM tuner Frequency range Usable sensitivity Selectivity  These specifications were determine with specification standards establis Car Stereo Manufacturers.	

Note:

Specifications and the design are subject to possible modification without notice due to improvements.



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### **ADJUSTMENT**

### **HEAD AZIMUTH ADJUSTMENT**

### • Connection Diagram

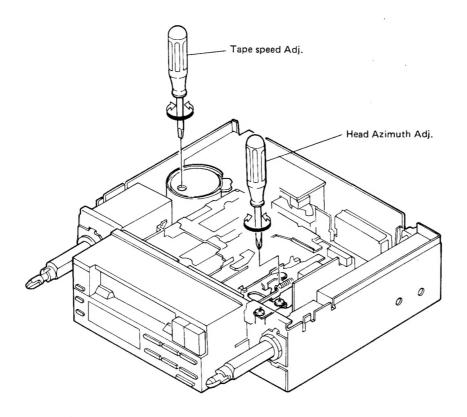


Fig. 1

### To Adjust

- Play "A" side of STD-341A (10kHz, -20dB). Adjust each screw for maximum output in forward and reverse directions.
- 2. Play "B" side in forward and reverse directions to confirm adjustment.

### TAPE SPEED ADJUSTMENT

• Connection Diagram (shown in Fig. 1)

### • To adjust

1. Reproduce STD-301 (3kHz, -10dB). Adjust the semi-fixed resistor so that the frequency counter shows 3,010Hz (+30Hz, -30Hz).

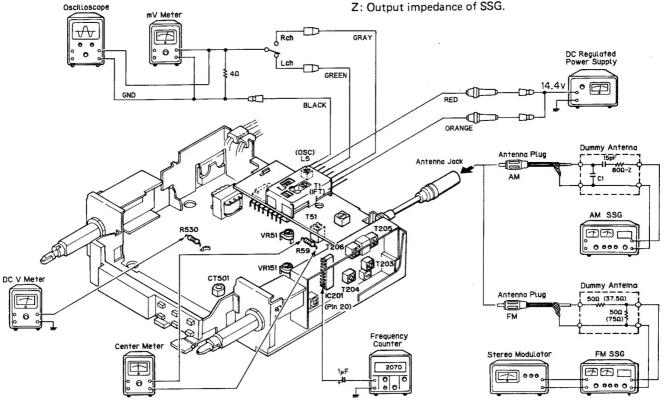
### FM IF ADJUSTMENT

### Connection Diagram

### NOTICE:

Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.

Z: Output impedance of SSG.



### To Adjust

- 1. Apply a signal of 98.1MHz, 400Hz, 100% modulation and 60dB ( $\mu V$ ) from the FM SSG and tune 98.1MHz.
- 2. Adjust T51 to make the center meter show 0.

### Fig. 2

### **AUTO LEVEL ADJUSTMENT**

### Connection Diagram (shown in Fig. 2)

### To Adjust

- 1. Set SSG at 98.1MHz and tune using the tuning button.
- 2. Set SSG to an output level of 35 dB ( $\mu$ V), and adjust VR151 to a separation of 5 dB (between the right and left channels).

### **FM SCAN SENSITIVITY**

### • Connection Diagram (shown in Fig. 2)

### To Adjust

- 1. Turn off the Local Station Seek switch.
- 2. Add a 98.1MHz (400Hz, 100% modulation) cut put level 25dB ( $\mu$ V) signal from the SSG.
- 3. Push the SEEK button, and adjust VR51 so that the SEEK stops.
- 4. Set the SSG output level to 14dB ( $\mu$ V). And check to make sure that the SEEK doesn't stop.
- 5. Push the Local Station Seek switch and set it to Lo. S.
- 6. Check to make sure that the SEEK stops when the SSG output level is 47  $\pm$ 10dB ( $\mu$ V).
- 7. If it is not within specifications, repeat the procdure starting at step one.

### AM (MW) TRACKING ADJUSTMENT

• Connection Diagram (shown in Fig. 2)

### To Adjust

Frequency of AM SSG	Displayed Frequency	Adjusting Point	DC V Meter	m∨ Meter
1.	1,620 kHz	For Confir- mation only	Less than 7.4V	
2.	530 kHz	For Confir- mation only	More than 0.7V	
3. 600 kHz (400 Hz, 30% modulation) output level 25 dB (μV)	600 kHz	T203, T204 T205, T206		Maximum output
600 kHz 4. 1,000 kHz (400 Hz, 30% modulation) 1,400 kHz output level 35 dB (μV)	600 kHz 1,000 kHz 1,400 kHz	For Confirmation Only		The difference between the maximum and minimum output levles at 600 kHz, 1,000 kHz, and 1,400 kHz must be 6 dB or less.

### FM TRACKING ADJUSTMENT

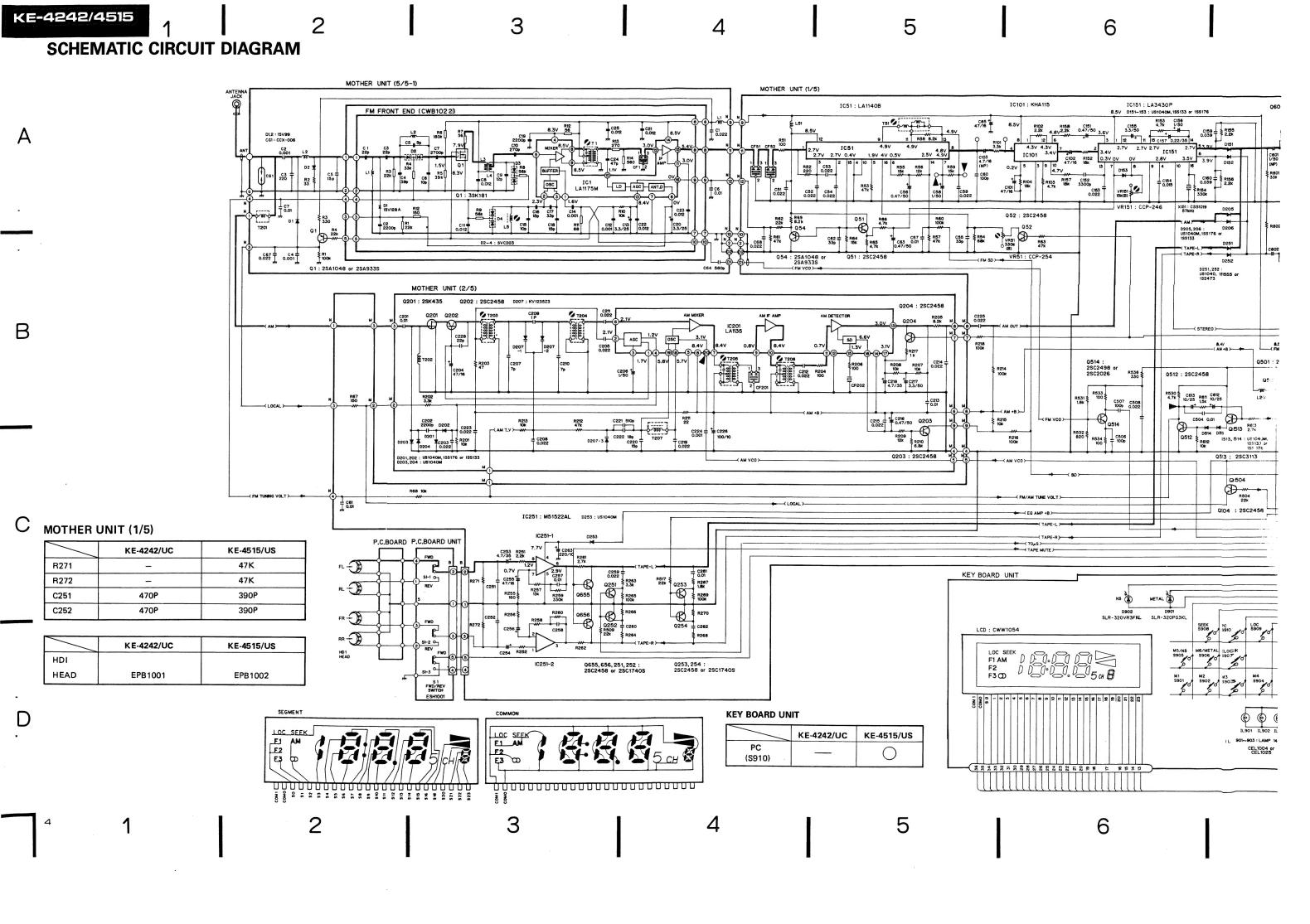
• Connection Diagram (shown in Fig. 2)

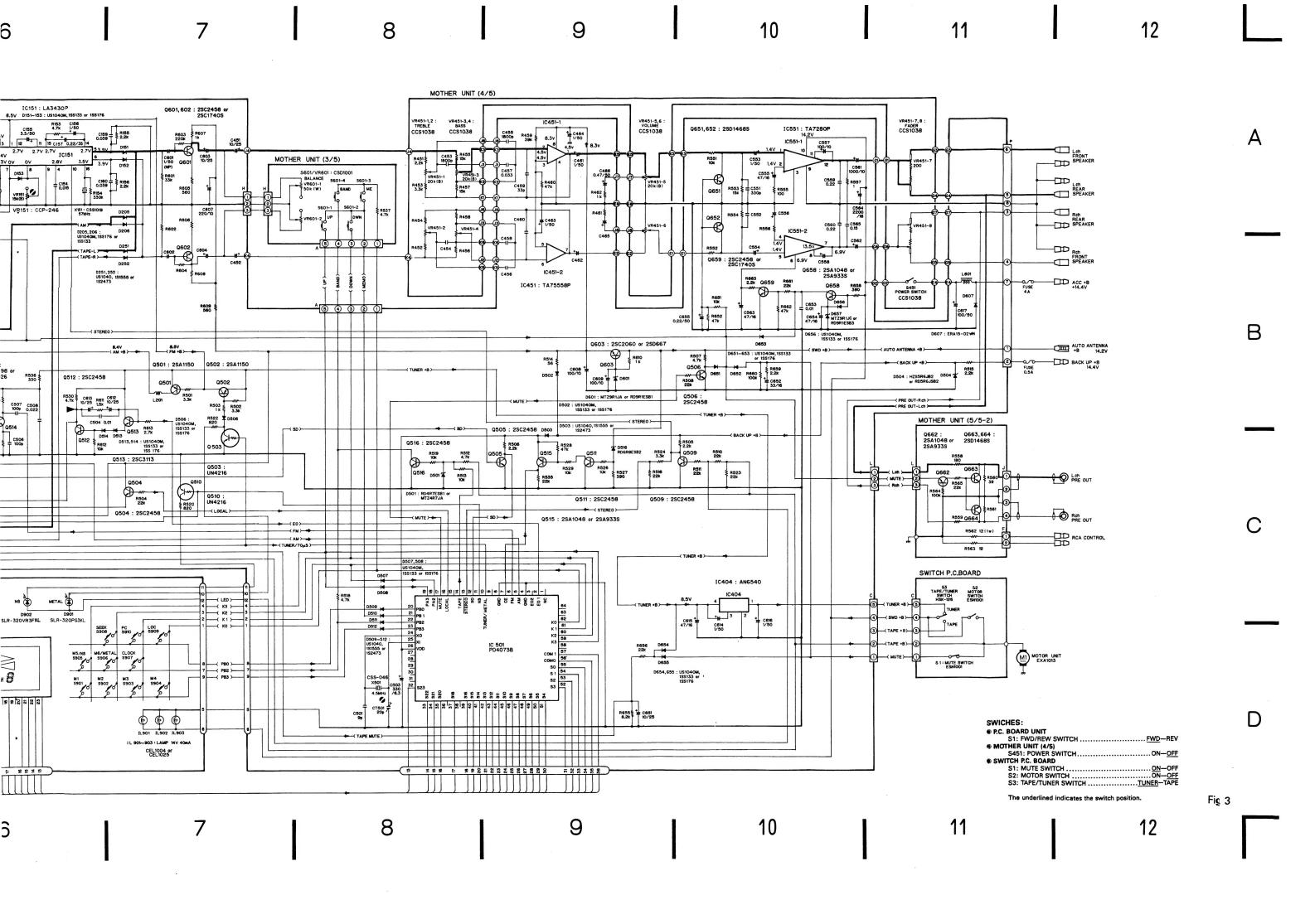
### To Adjust

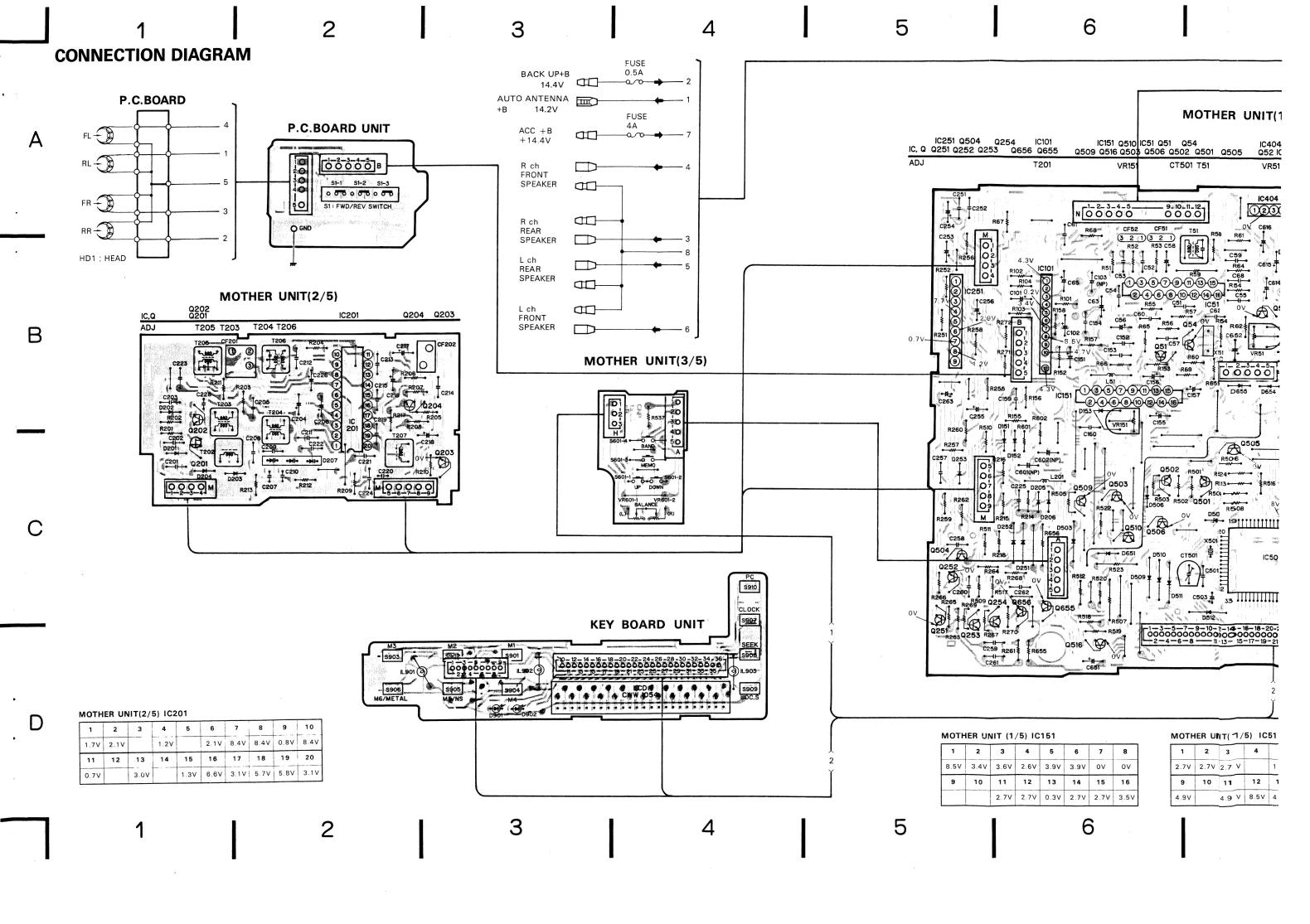
Frequency of FM SSG	Displayed Frequency	Adjusting Point	DC V Meter	mV Meter
1.	107.9 MHz	L5	Less than 7.4V	
2.	87.9 MHz	For confir- mation only	More than 1.6V	
3. 98.1 MHz (400 Hz, 100% modulation) output level 5 ~ 10 dB ( $\mu$ V)	98.1 MHz	T1		Maximum output

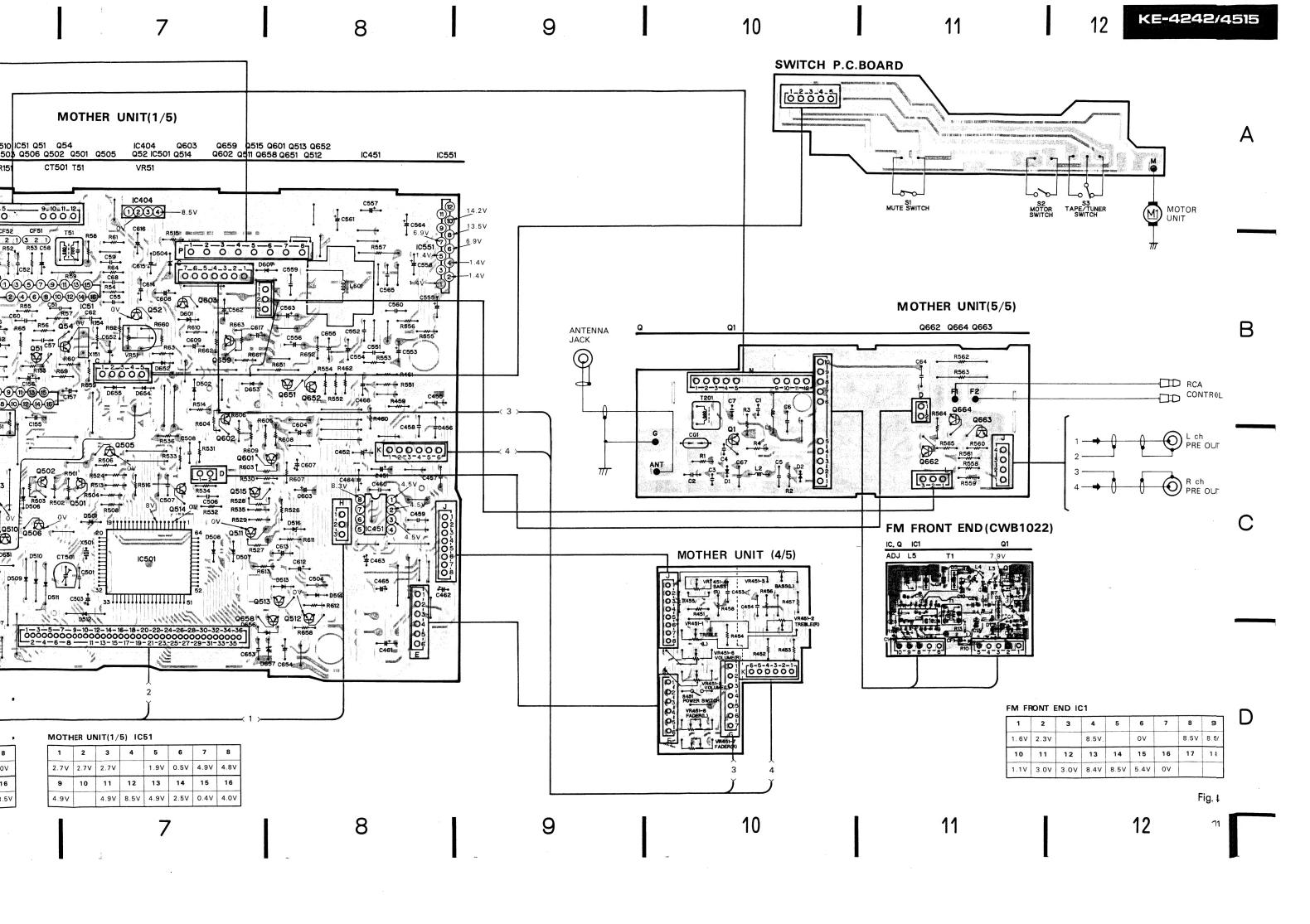
### REFERENCE OSCILLATION FREQUENCY ADJUSTMENT

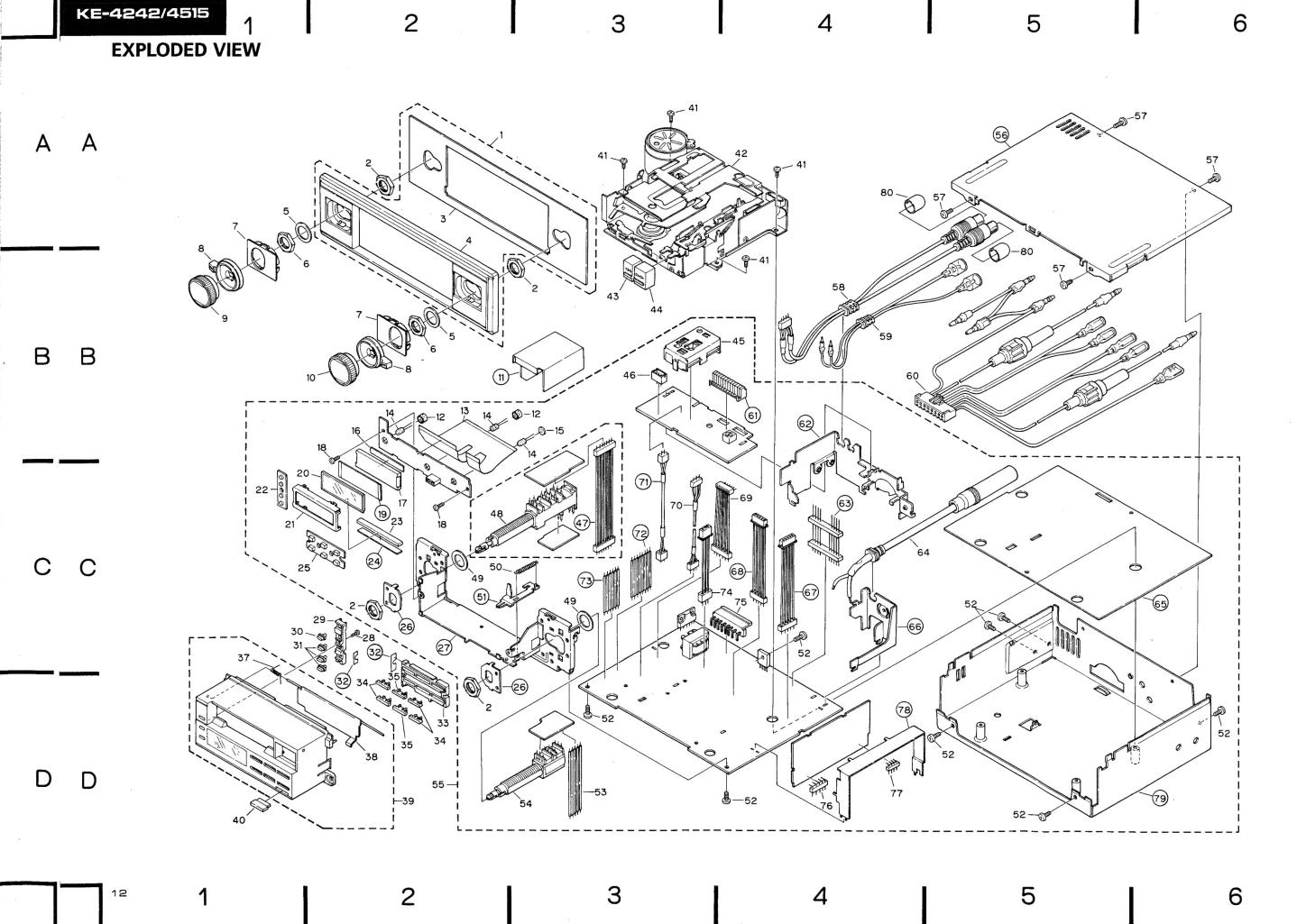
- Connection Diagram (shown in Fig. 2)
- To Adjust
- 1. Set the AM position.
- 2. Set the LCD display to 1620KHz.
- 3. Adjust CT501 sot that the frequency counter display becomes 2070kHz ±40Hz.











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### Part List

### NOTE

- For your parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.
- \* \*: GENERALLY MOVES FASTER THAN \*.

This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

- Parts whose parts numbers are omitted are subject to being not supplied.
- Parts marked by "@" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

_	Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
		1.	CXA1629	Panel Assy	•	42.	EXK1130	Cassette Mechanism Assy
		2.	CBN-028	Nut				(KE-4242/UC)
		3.	CNG-633	Plate			EXK1150	Cassette Mechanism Assy
		4.	CNS1226	Panel				(KE-4515/US)
		5.	CND-646	Spacer	*	43.	CAC1277	Button
		6.	CBN-028	Nut	*	44.	CAC1276	Button
		7.	CNK-292	Cap		45.	CWB1022	FM Front End
	*	8.	CAA1054	Knob (KE-4242/UC)		46.	CKS-567	Plag (3P)
В			CAA1058	Knob (KE-4515/US)		47.		Connector
	*	9.	CAA1011	Knob	**	48.	CCS1038	Volume/Switch
	*	10.	CAA1055	Knob		39.	CBE-084	Spacer
		11.		Insulator		50.	CBH1084	Spring
		12.	CNV1088	Bush		51.		Lever
		13.	CNP1296	P.C. Board		52.	BMZ30P060FMC	Screw
	**	14.	CEL1004 or	Lamp, 14V 40mA		53.	CDE1409	Connector
			CEL1025		**	54.	CSD1001	Volume/Switch
		15.	CNV1102	Bush		55.	CWM1350	Tuner Amp Assy (KE-4242/UC)
		16.	CNN-137	Spacer			CWM1351	Tuner Amp Assy (KE-4515/US)
		17.	CNY-215	Lens		56.		Case
		18.	PMZ20P050FMC	Screw		57.	BMZ30P040FMC	Screw
		19.		Plate		58.	CDE1126	Connector
		20.	CWW1054	LCD		59.	CDE1381	Cord
		21.	CNH-136	Holder		60.	CDE1419	Cord Assy
		22.	CNV1375	Rubber		16.		Connector
		23.	CNY-214	Connector		62.		Heat Sink
		24.		Insulator		63.		Plug (8P)
		25.	CNV1299	Rubber		64.	CDH1061	Antenna Cable
		26.		Holder		65.		Insulator
		27.		Frame Unit		66.		Holder
		28.	PTZ14P045FZK	Screw		67.		Connector (5P)
		29.	CNV1298	Lens		68.		Connector (5P)
	*	30.	CAC1281	Button (KE-4515/US)		69.	CDE1412	Connector (6P)
	*	31.	CAC1281	Button		70.	CDK-206	Connector (3P)
		32.		Plate		71.		Connector (2P)
		33.	CNV1297	Lens		72.		Connector (8P)
		34.	CAC1279	Button		73.		Connector (6P)
	*	35.	CAC1280	Button		74.	CDE1410	Connector (3P)
		36.	VACANT			75.	CKS-465	Plug (8P)
		37.	CBH1033	Spring		76.	CKS-128	Plug (5P)
		38.	CAT1056	Door (KE-4242/UC)		77.	CKS-127	Plug (4P)
_			CAT1057	Door (KE-4515/US)		78.		Holder
J		39.	CXA1587	Grille Unit (KE-4242/US)		79.		Chassis Unit
-			CXA1588	Grille Unit (KE-4515/US)		80.	CNW-829	Cap
	*	40.	CAC1278	Button				
		41.	BMZ26P050FMC	Screw				

### **ELECTRICAL PARTS LIST**

### NOTE:

When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

$560\Omega$	$56 \times 10^{7}$	561	RD1/4PS 5 6 1 J
$47k\Omega$	$47 \times 10^{3}$	473	RD1/4PS 4 7 3 J
$0.5\Omega$	0R5		RN2H @ B 5 K
1 $\Omega$	010	• • • • • • • • • • • • • • • • • • • •	<i>RS1P</i> 🛈 🗓 🛈 <i>K</i>

- For your parts Stock Control, the fast moving items are indicated with the marks \*\* and \*.
- \* \*: GENERALLY MOVES FASTER THAN \*.

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### MOTHER UNIT MISCELLANEOUS

<i>N</i> ark	Symbol & Description	Part No.	Mark		Symbol & I	Description	Part No.
**	IC51	LA1140B		*	D207		KV1235Z3
**	IC101	KHA115		*	D251, 252,	, 503, 509 512	US1040 or
**	IC151	LA3430P					1S1555 or
* *	IC201	LA1135					1S2473
**	IC251	M51522AL		*	D501		RD4R7ESB1 or
**	IC404	AN6540					MTZ4R7JA
* *	IC451	TA75558P	,	*	D504		HZS5R6JB2 or
**	IC501	PD4073B					RD5R6JSB2
**	IC551	TA7280P	,	*	D516		RD6R8ESB2
* *	Q1, 54, 515, 658, 662	2SA1048 or		*	D601		MTZ9R1JA or
		2SA933S					
							RD9R1ESB1
**	Q51, 52, 202 — 204	2SC2458	,	*	D607		ERA15-02VH
**	Q201	2SK435	1	*	D657		MTZ9R1JC or
* *	Q251 - 254	2SC2458 or					RD9R1ESB3
		2SC1740S			L1	Ferri-Inductor	CTF-156
**	Q501, 502	2SA1150					
					L2	Ferri-Inductor	CTF1038
**	Q503, 510	UN4216			L51	Ferri-Inductor	CTF-155
* *	Q504 - 506, 509, 511, 512, 516	2SC2458			L201	Ferri-Inductor	CTF-157
* *	Q513	2SC3113			L601	Coil	CTF-002
**	Q514	2SC2498 or			T51	Coil	CTC-198
		2SC2026	*				
					T201	Coil	CTB1011
* *	Q601, 602, 655, 656, 659	2SC2458 or			T202	Coil	CTB1012
		2SC1740S			T203, 204	Coil	CTB1013
* *	Q603	2SC2060 or			T205	Coil	CTE1011
		2SD667			T206	Coil	CTE1012
**	Q651, 652	2SD1468S					
					T207	Coil	CTB1014
* *	Q663, 664	2SD1468S			CF51, 52	Ceramic Filter	CTF-182
*	D151 - 153, 201, 202, 205, 206,	US1040M or			CF201	Filter	CTF-240
	253, 502, 506 -508, 513, 514,	1SS176 or			CF202	Ceramic Resonator	CTF-247
	651 - 656	15S133	*	*	VR51	Semi-fixed, 330k $\Omega$ (B)	CCP-254
*	D203, 204, 253	US1040M					

Mark	Symbol & Description	Part No. M	lark	Symbol & Description	Part No.
**	VR151 Semi-fixed, 15kΩ (B)	CCP-246		C209	CCPCH010M50L
	VR451/S451 Volume/Switch	CCS1038		C217	CEA3R3M50L2
	(TREBLE, BASS, FADE	R/		C218	CEA4R7M35L2
	POWER)			C220	CCDCH150J50L
				C221	CQPA511G2A
	CG1	CCX-006			
	CT501 Trimmer, 20P	CCG-070		C222	CCCRH180J50
	X151 Ceramic Resonator, 57k			C224	CKPYB102K50L
	X501 X'tal, 4.5MHz	CSS-046		C226	CEA101M10L2
	· ·	CSD1001		C228	CCDSL220J50L
* *		C3D1001		C251, 252 (KE-4242/UC)	CKPYB471K50L
	(BAND, MEMO/TONE, BALANCE)			G231, 232 (KL-4242) GG	OKITETTIKOOL
	BALANCE			C251, 252 (KE-4515/US)	CKPYB391K50L
				C253, 254	CEANL4R7M35LL
RESIST	ORS			C255, 256	CEA470M16LS
Mark	Symbol & Description	Part No.		C257, 258, 261, 262	CGCYX103K25
	R51 - 58, 60 -69, 101 - 104,	RD1/4PS□□□JL		C259, 260	CGCYX223K25
	152 - 158, 201 - 218, 251,252,	1101741 022202		C263	CEA221M10L2
	255 - 270, 451 - 462, 501 - 506,			C451, 452	CEA100M25LS
				C453 - 456	CQMA182K50LL
	508,— 520, 522, 524 — 537,			C457, 458	CQMA333J50L
	551 — 556, 558 — 561, 564, 565,			C459, 460	CCPSL330J50L
	601 - 613, 652, 655, 658 - 663				
	R59, 507, 523, 557, 651, 656	RD1/4PM□□□J		C461, 464	CEA010M50LS2
	R562, 563	RS1PDDBJL		C462, 463	CEA010M50L2
	R271, 272 (KE-4515/US)	RD1/4PS DDDJL		C465	CEAR47M50L2
				C466	CEAR47M50LS2
CAPA	CITORS			C501	CCCCH09OD50
Mark	Symbol & Description	Part No.		C503	CEA331M6R3L2
	C1, 51 54, 59, 67, 68, 153, 203	CGCYX223K25		C504, 653	CGCYX103K25
	C2	CCDPH390J50		C506, 507	CKPYB101 K50L
	C3, 228	CCDSL220J50L		C508	CKDBC223 K25
	C4	CKDBC102K25		C551, 552	CKDYB331 K50
	C5	CCL-068		0331, 332	CKD 1 B33 1 K30
	00			C553, 554	CEA010M50LS2
	C55, 62	CCCSL330J50		C555, 556, 563	CEA470M16L2
	C6, 7, 57, 61, 201, 213	CGCYX103K25		C557, 558	CEA101M1 0L2
	C56, 63, 151, 216	CEAR47M50LS2		C559, 560	CQMA224J50L
	C58, 156, 616	CEA010M50LS2		C561, 562	CEA102M1 0L2
	C60	CKPYB101K50L			
	C00	5K, 1510/K552		C564	CEA222N1 6L2
		CKCYB561K50		C565	CQMA154JI50L
	OC A			0004 000	CEA010M50NPLL
	C64			C601, 602	CEAUTOMSONFLL
	C65, 204	CEA470M16L2		C601, 602 C603, 604	CEA100M25LS
	C65, 204 C101, 102, 255, 256	CEA470M16L2 CEA470M16LS		C603, 604	
	C65, 204 C101, 102, 255, 256 C103	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL			CEA100M25LS
	C65, 204 C101, 102, 255, 256	CEA470M16L2 CEA470M16LS		C603, 604 C607	CEA100M25LS
	C65, 204 C101, 102, 255, 256 C103 C152	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25		C603, 604 C607 C608, 609	CEA100M25LS CEA221M1 0L2
	C65, 204 C101, 102, 255, 256 C103 C152	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25		C603, 604 C607 C608, 609 C612, 613	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25 CEA3R3M50LS		C603, 604 C607 C608, 609 C612, 613 C615	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25 CEA3R3M50LS CSZAR22M35		C603, 604 C607 C608, 609 C612, 613 C615	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS CEA470M1 6L2
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157 C159, 160	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25 CEA3R3M50LS CSZAR22M35 CKDBC393K25		C603, 604 C607 C608, 609 C612, 613 C615	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS CEA470M1 6L2 CEA101M50L2
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25 CEA3R3M50LS CSZAR22M35		C603, 604 C607 C608, 609 C612, 613 C615	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS CEA470M1 6L2 CEA101M50L2
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157 C159, 160 C161	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25 CEA3R3M50LS CSZAR22M35 CKDBC393K25 CEA220M16L2		C603, 604 C607 C608, 609 C612, 613 C615 C617	CEA100M25LS CEA221M1 0L2 CEA100M25LS CEA470M1 6L2 CEA101M50L2 CEA100M25LS
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157 C159, 160 C161	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25  CKDBC153K25 CEA3R3M50LS CSZAR22M35 CKDBC393K25 CEA220M16L2  CGCYX222K25		C603, 604 C607 C608, 609 C612, 613 C615 C617 C651	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS CEA470M1 6L2 CEA101M50L2 CEA100M25LS
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157 C159, 160 C161 C202 C205, 208, 211, 212, 214, 215,	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25 CKDBC153K25 CEA3R3M50LS CSZAR22M35 CKDBC393K25 CEA220M16L2		C603, 604 C607 C608, 609 C612, 613 C615 C617 C651	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS CEA470M1 6L2 CEA101M50L2 CEA100M25LS CEA470M1 6LS CEA470M1 6LS
	C65, 204 C101, 102, 255, 256 C103 C152 C154 C155 C157 C159, 160 C161	CEA470M16L2 CEA470M16LS CEA4R7M16NPLL CGCYX332K25  CKDBC153K25 CEA3R3M50LS CSZAR22M35 CKDBC393K25 CEA220M16L2  CGCYX222K25		C603, 604 C607 C608, 609 C612, 613 C615 C617 C651	CEA100M25LS CEA221M1 0L2 CEA101M1 0L2 CEA100M25LS CEA470M1 6L2 CEA101M50L2 CEA100M25LS CEA470M1 6LS CEA470M1 6LS

### KE-4242/4515

### **KEY BOARD UNIT**

### **SWITCH P.C. BOARD**

Mark	Symbol & Description	Part No.	Mark	Symbol	& Description	Part No.
*	LCD	CWW1054		S1, 2	Switch (MUTE, MOTOR)	
*	, _ , _ , _ , _ , _ , _ , _ , _ , _	SLR-320PG3KL	**	S3	Switch (TAPE/TUNER)	HSK-126
* *		SLR-320VR3FKL CEL1004 or				
~ ~	12001 000 Eamp, 147 4001A	CEL1025	P.C. BO	DARD	UNIT	
			Mark	Symbol	& Description	Part No.
			**	S1	Switch (FWD/REV)	ESH1001
			Miscell	aneous	Parts List	
			Mark	Symbol	& Description	Part No.
			**	HD1	Head (KE-4242/UC)	EPB1001
			**	HD1	Head (KE-4515/US)	EPB1002
			* *	M1	Motor	EXA1013

### **CASSETTE MECHANISM ASSY EXPLODED VIEW**

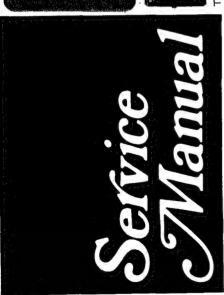
### • Part List (Page 71)

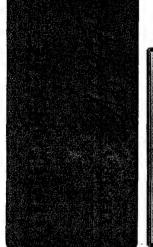
	K	E-3232/UC	KE-4242/UC		KE-4515/US
Mark	No.	Part No.	Part No.	Part No.	Description
**	43. 60.	ENV 1016 EPB 1001	ENV1016 EPB1001	ENV1024 EPB1002	Tape Guide Head
	62.	ENP1003	ENP1003	ENP1007	P.C. Board

### **PACKING METHOD**

### • Part List (Page 79)

	K	E-3232/UC	KE-4242/UC		KE-4515/US
Mark	No.	Part No.	Part No.	Part No.	Description
	1.	CHG1270	CHG1265	CHG1269	Carton
	2.	CXA1773	CXA1773	CXA1637	Knob Assy
*	r 2-2.	CAA1054	CAA1054	CAA1058	Knob
	4.	CRD1124	CRD1125	CRB1082	Owner's Manual
	12.	CHL1270	CHL1265	CHL1269	Contain Box







The photo shows the model KE-3232/UC.

: r

# CASSETTE CAR STEREO WITH FM/AM ELECTRONIC TUNER

UC, ES

UC, ES

NS

NOTE:

See the separate manual CRT1094 for the cassette mechanism Assy (EXK1130).

### CONTENTS

23. PACKING METHOD	(KE-2222/IC)
22. ELECTRICAL PARTS LIST	12. SCHEMATIC CIRCUIT DIAGRAM
EXPLODED VIEW71	11. CONNECTION DIAGRAM (KE-3011/US)32
21. CASSETTE MECHANISM ASSY	(KE-3011/US)28
20. EXPLODED VIEW68	10. SCHEMATIC CIRCUIT DIAGRAM
19. CONNECTION DIAGRAM (KE-2222/ES)64	9. CONNECTION DIAGRAM (KE-3232/UC)24
(KE-2222/ES)60	(KE-3232/UC)20
18. SCHEMATIC CIRCUIT DIAGRAM	8. SCHEMATIC CIRCUIT DIAGRAM
17. CONNECTION DIAGRAM (KE-3232/ES)56	7. ADJUSTMENT14
(KE-3232/ES)52	6. DISASSEMBLY12
16. SCHEMATIC CIRCUIT DIAGRAM	5. OPERATION
15. CONNECTION DIAGRAM (KE-2515/US)48	4. LEVEL DIAGRAM8
(KE-2515/US)44	3. BLOCK DIAGRAM4
14. SCHEMATIC CIRCUIT DIAGRAM	2. CONNECTION
13. CONNECTION DIAGRAM (KE-2222/UC) 40	1. SPECIFICATIONS1

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A. TEL: (213) 420-5700 PIONEER ELECTRONIC EUROPE) N.V. Keetbergaan 1, 2740 Beveren, Beigum TEL: 03/775-28-08 PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia



## 1. SPECIFICATIONS

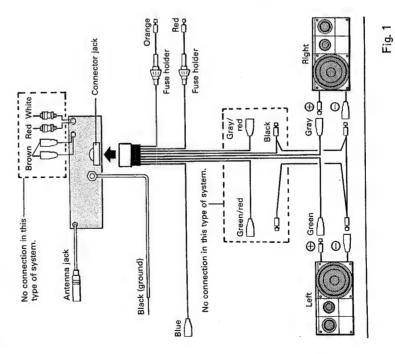
General Power source	FM tuner Frequency range (KE-3232/UC, 3011/US, 2222/UC, 2515/US)
Max. Current consumption (KE-3232/UC, ES, 3011/US)2.5A	(KE-3232/ES, 2222/ES)87.5 – 10.79MHz
(KE-2222/UC, ES, 2515/US)	Usable sensitivity 12dBf (1.1 $\mu$ V/75 $\Omega$ 2, mon%) 50dB quieting sensitibity 17dBf (1.9 $\mu$ V/75 $\Omega$ , mon%) Signal-10-noise ratio
(nose)	(KE-3232/UC, 2222/UC, 3011/US, 2515/US)
terval	Signal-to-noise ratio (KE-3232/ES, 2222/ES)
Weight (KE-3232/UC, ES, 3011/US)1.5kg (3,3lbs)	Distortion
(KE-2222/UC, ES, 2515/US)14kg (3,1lbs)	Frequency response
Continuous power output is 3.2W per channel min. into	AM tuner (KE-3232/UC, 2222/UC, 3011/US, 2515/US)
4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.	Frequency range 530 – 1,620kHz Usable sensitivity 50dB ( $\pm$ 10kHz) Selectivity
Maximum power output $8.5W \times 2/7W \times 4$ (EIAJ)	AM tuner (KE-3232/ES, 2222/ES)
$(KE-2515/US) 8.5W \times 2 (EIAJ)$	Frequency range (Initial setting) 531 - 1,602kHz
Continuous power output (KE-3232/ES)	(New setting) 530 – 1,620kHz
	Usable sensitivity
Continuous power output (NE-2222/LD)	Selectivity (initial setting)50dB (±38472) (New setting)50dB (±10kHz)
Load impedance -	
(KE-3232/UC, ES, 3011/US) 4 $\lambda$ 2 (4–8 $\lambda$ 2 allowable) (KE-2222/UC ES, 2515/US) 4 $\Omega$ (2–8 $\Omega$ allowable)	These specifications were determined and are presanted in
Maximum output level/output impedance (RCA)	Ad Hoc Committee of Car Stereo Manufacturers.
(KE-3232/UC)500mV/100Ω	
Tone controls (bass) (KE-3232/UC, ES) ±10dB (100Hz)	Note:
(ifebje) (inc. 3232/300, E3/. : = 1300 (1301): 1	Specifications and the design are subject to possible mo-
Loudness countour (KE-3232/ES, 2222/ES)  Loudness countour (KE-3232/ES, 2222/ES) +12dB (100Hz), +7dB (10kHz) (Volume:30dB)	diffication without notice due to improvements.
Tape player	
Tape	
Fast forward/rewind time Approx. 100sec. for C-60 Wow & flutter	
Frequency response (KE-3232/UC, ES, 3011/US)	
Normal: 50 — 17,000 Hz (±3dB)	
Frequency response (KE-2222/UC, ES, 2515/US)	
Stereo separation45dB	
Signal-to-noise ratio (KE-3232/UC, 2222/UC, 3011/US, 2515/US)	
(KE-3232/ES, 2222/ES) 52dB (IEC-A network)	

### 2. CONNECTION

- Note:
  To avoid shorts in the electrical system, be sure to disconnect the battery \( \text{\$\tex
- Cover unused terminals with tape to prevent electrical shorts.
  - (KE-3232) Refer to the power amp owner's manual when connecting a power amp (sold separately) to the pin jack.
- When using a separately available power amp with RCA terminal in a 4-speaker system with fader control capabilities, connect the brown leads from this unit to the green and gray output leads of this unit. (KE-3232)

	(
Black (ground)	Black (ground) To vehicle (metal) body.
Blue	System control/Auto-antenna relay control terminal (Max. 300 mA 12 V DC).
Orange	To terminal always supplied with power regardless of ignition switch position.
Red	To electric terminal controlled by ignition switch (12 V DC) ON/OFF.

2-speaker system KE-3232



4-speaker system 1 KE-3232

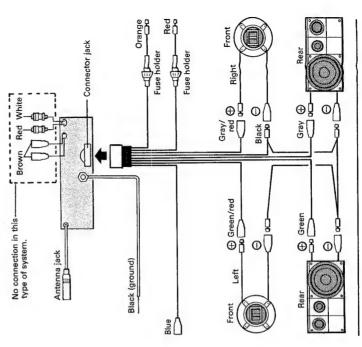


Fig. 2



KE-3232
4-speaker system 2 [Using separately available amp.]

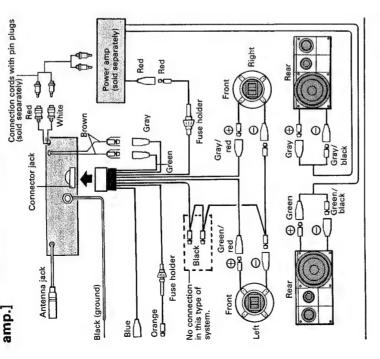


Fig. 3

KE-2222

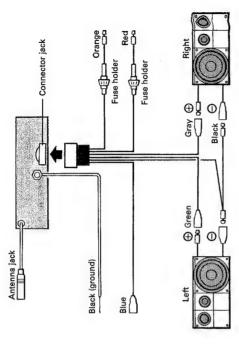
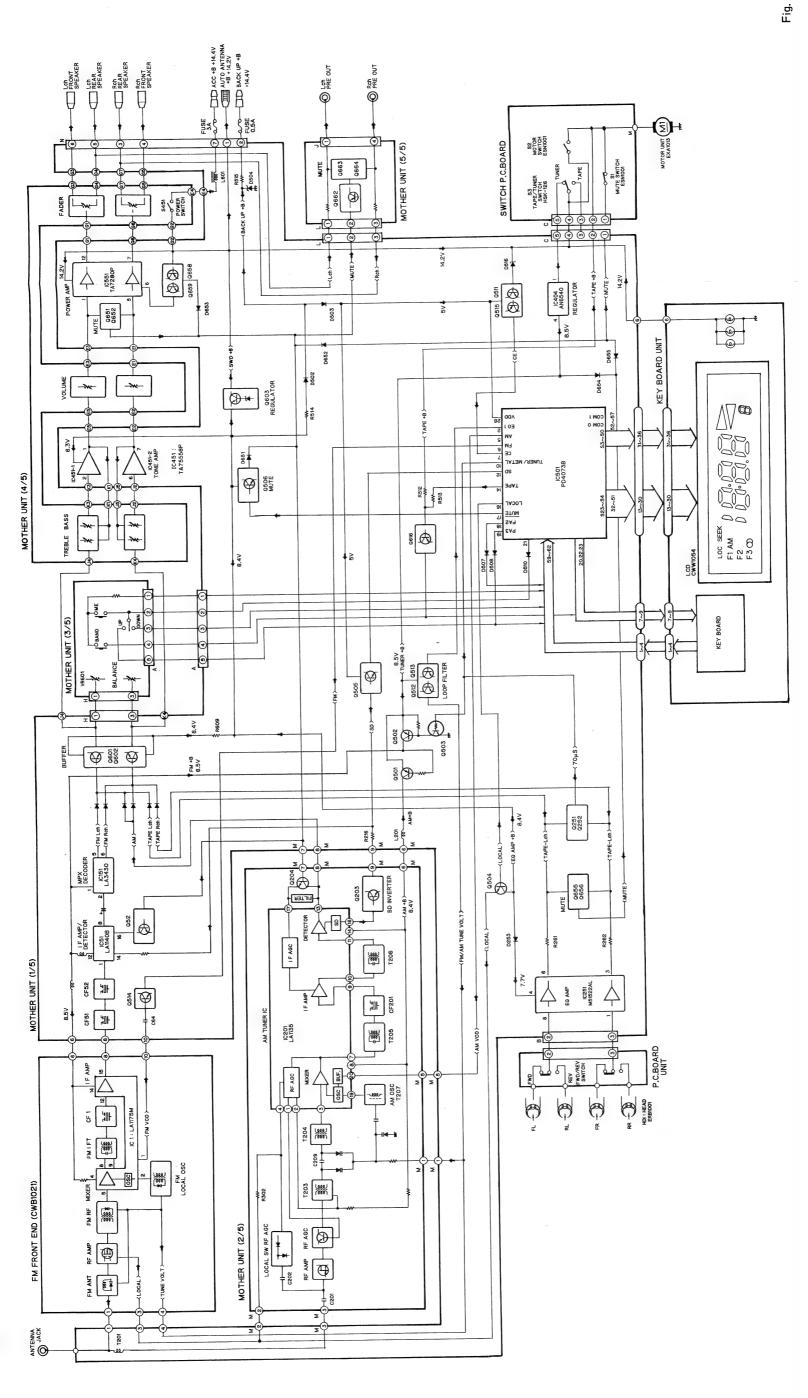


Fig. 4

## 3. BLOCK DIAGRAM

• KE-3232/UC



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• KE-2222/UC

KE-3232

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## 4. LEVEL DIAGRAM

## KE-3232/UC, ES, 3011/US

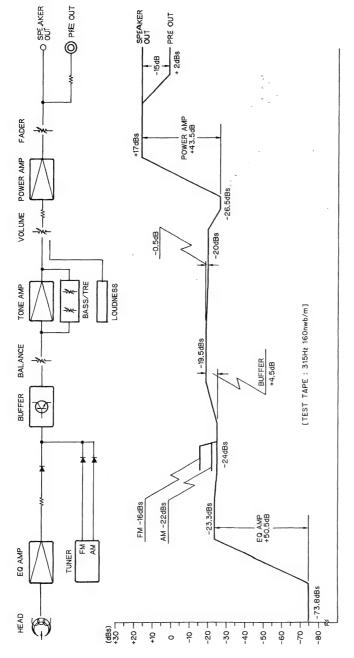


Fig. 7

## KE-2222/UC, ES, 2515/US

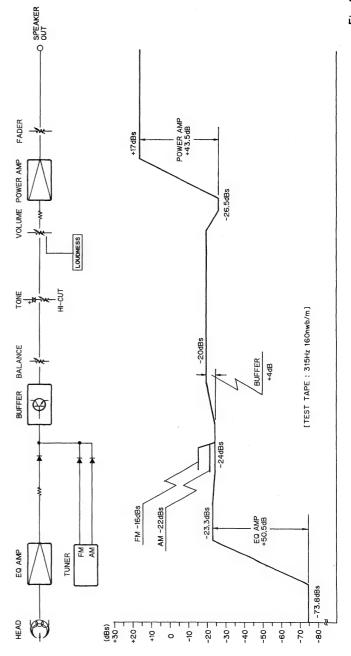
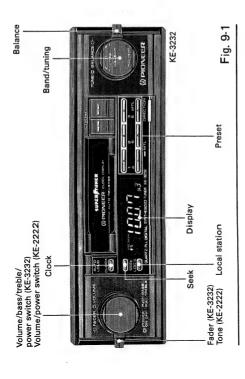


Fig. 8

### 5. OPERATION

### Using the Radio



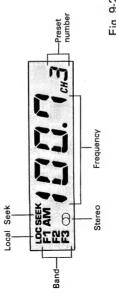


Fig. 9-2

### Local Station Switch

Pressing this switch lowers the seek tuning reception sensitivity so that only stronger signals can be tuned in. This feature is convenient when driving through areas that have numerous radio stations. When this switch is depressed, the local indicator will be illuminated on the display.

### Fader Control (KE-3232)

This control is used to adjust the balance between the front and rear speakers when using a 4-speaker system. Turning the control upwards decreases the volume of the rear speakers, while turning it downwards decreases the volume of the front speakers. With 2-speaker systems, set this control to a horizontal position.

Important
Aconsiderable amount of sound will continue to be produced from speakers of a
4-speaker system which have been cut by setting the fader control either to the
front speakers or rear speakers. This tendency is especially noticeable when an
front speakers or rear speakers. This is normal and does not indicate manseparately available amp is connected. This is normal and does not indicate man-

### **Auto-Loudness**

When playing back a tape or listening to the radio at low volume, the low tone is automatically emphasized.

### Clock Switch

Each press causes the display to switch between clock and frequency.

## Before attempting operation...

- Reduce the volume by turning the volume control knob to the left.
- Set the fader control to the left horizontal. (KE-3232)
- Turning the power switch to the right causes power to switch OM and the current frequency to appear on the display.
- Press the band switch to select the band.
- Press the seek button and the seek tuning indicator will be displayed.
- Turn the tuning knob to the left or right to tune in the desired frequency. (Turning to the right will increase the frequency.)
  - Adjust the volume and balance.

### KE-3232

Adjust the tone to the desired position. To adjust low tone, turn the volume knob while pressing it. For high tones, turn the volume knob after it has been pulled out until it clicks into place. Return the volume knob after adjusting the tone. ø.

### KE-2222

- 6. Adjust the tone.
- To enter a frequency into the preset memory...
- Pull the tuning knob and preset number will flash. (approximately 5 seconds)

Within 5 seconds, press one of the preset buttons (1-6) to enter the frequency into the memory. At this time the number of the button pressed will be displayed. Six FM1 frequencies, six FM2 frequencies, six FM3 frequencies and six AM frequencies can be

### Seek Tuning

ing the tuning knob to the left or right. FM frequencies change in 0.2 MHz steps while those in the AM band change in 10 kHz steps. Press the seek button, and tuning to the next higher or lower broadcast on the band can be accomplished automatically by simply turn-

### **Preset Tuning**

Pressing the preset button instantly tunes in the frequency programmed in the memory for that button.

## Preset Scan Tuning (KE-2515/US)

Pressing the preset scan button (CH indicator flashes) causes previously stored frequencies to be tuned in sequentially for eight seconds each. Press again when the desired frequency is tuned in to cancel preset scan tuning.

### Manual Tuning

When manual tuning is employed, FM frequencies change in 0.2 MHz steps while AM frequencies change in 10 kHz steps.

- 1. Press the seek button and the seek tuning indicator will disappear from the display.
- right. Turning the knob once will change the frequency one step (see above). Holding the tuning knob in either direction will successively change the frequency at the prescribed step. Change the frequency by turning the tuning knob to the left or

### Using the Tape Deck

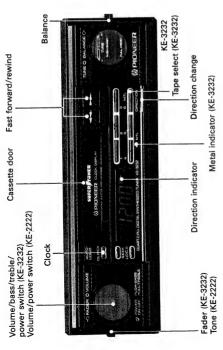


Fig. 10

- **Before attempting operation...**Reduce the volume by turning the volume control knob to the
- Set the fader control to the left horizontal. (KE-3232)
- Turning the power switch to the right causes power to switch ON.
- Loading a cassette tape into the load solt causes playback to begin automatically. At this time, the tape transport direction is noted on the display, along with the current time. The unit automatically switches to tape playback even if the radio in ON when the cassette is loaded.
  - Adjust the volume and balance. 3. Adjust **KE-3232**

Adjust the tone to the desired position. To adjust low tone, turn the volume knob while pressing it. For high tones, turn the volume knob after it has been pulled out until it clicks into place.

### Setting the Time

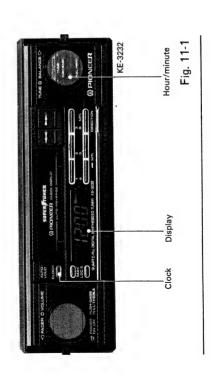


Fig. 11-2

Return the volume knob after adjusting the tone.

### KE-2222

- 5. When tape playback reaches the end of the tape, playback will automatically switch from the side being played to the Opposite side (ie. Side A to Side B or vice versa) (Auto-reverse). To eject the tape during playback, simultaneously press the fast forward and rewind buttons. 4. Adjust the tone.
- Do not try to eject the cassette immediately after insertion, as it will cause malfunctioin. Wait a few seconds. Be sure to eject the tape when the vehicle's ignition is turned OFF. Leaving the tape in the unit can deform the pinch roller causing wow and flutter during tape playback.

 Fast Forward/Rewind
 Since the transport can be in either direction, both the left and right high-speed tape transport buttons can be regarded as fast forward/ rewind buttons.

For fast forward, press the high-speed tape transport button that corresponds to the direction that is shown by the direction indicator. When the end of the tape is reached, playback will automatically begin from the opposite side of the tape (Auto-reverse).

shown by the direction indicator. When the end of the tape is For rewind, press the button that is opposite that of the direction reached, playback will automatically begin from the beginning of the same side of the tape (Auto-replay).

Fast forward and rewind can be terminated by pressing the respective opposite high-speed tape transport button.

### Direction Change Button

This button is used to switch from one side of the tape to the other (from Side A to Side B or vice versa).

## Tape Select Switch (KE-3232)

This switch is used to switch to the proper mode for the tape being used and should be depressed when using chrome or metal tapes.

- Press the clock switch to switch to the time display.

  Pull the hour/minute control knob towards you and turn it to the left to advance hours. Turn to the right to advance minutes. Holding the knob in either position consecutively advances the respective hour/minute display.



# Switching the Tuning Steps (KE-3232/ES, 2222/ES)

### Tuning Step Switch

The tuning step switch is located on the bottom of the unit and is set at shipment from the factory as shown in Fig. 12-1. The setting of this switch should be changed to that shown in Fig. 12-2 for use in North America, Central America, or South America.

	Specification	Initial Setting	New Setting
2	Tuning steps	9 kHz steps	10 kHz steps
	Frequency range	531 — 1,602 kHz   530 — 1,620 kH	530 — 1,620 кН

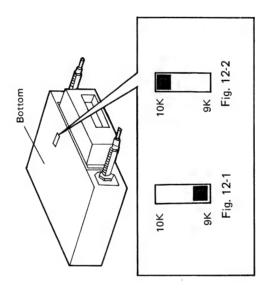


Fig. 13

## 6. DISASSEMBLY

Removing the Case
 Remove the four screws (A), and remove the Case

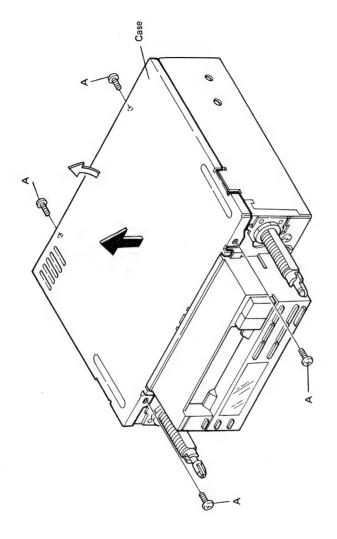


Fig. 14

## Removing the Grille Assy Remove the two hooks.

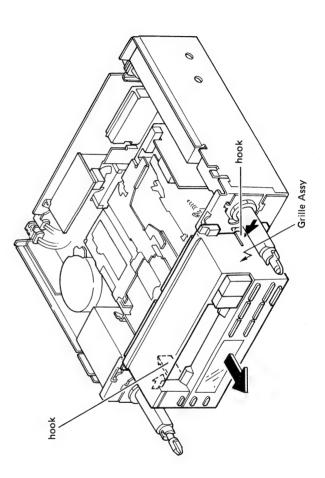
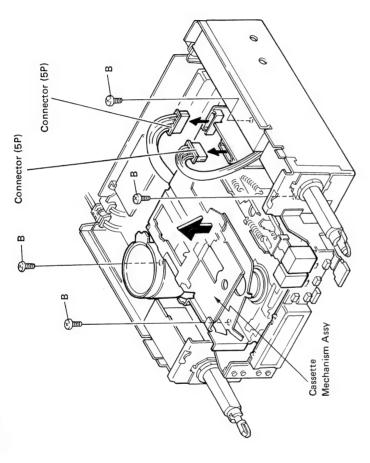


Fig. 15

## • Removing the Cassette Mechanism Assy 1. Remove the Connectors (5P x 2). 2. Remove the four screws (B).



## • Removing the chassis Unit 1. Remove the five screws (C). 2. Stretch the claw.

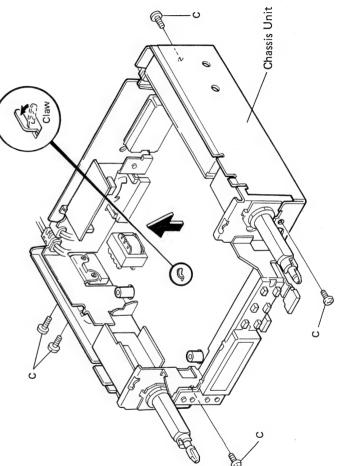


Fig. 16

Fig. 17



### 7. ADJUSTMENT

## 7.1 HEAD AZIMUTH ADJUSTMENT

### Connection Diagram

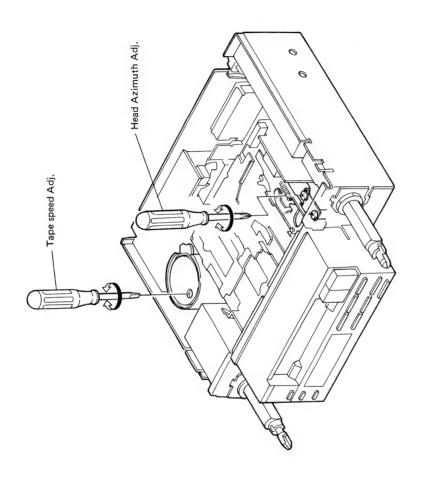


Fig. 18

### To Adjust

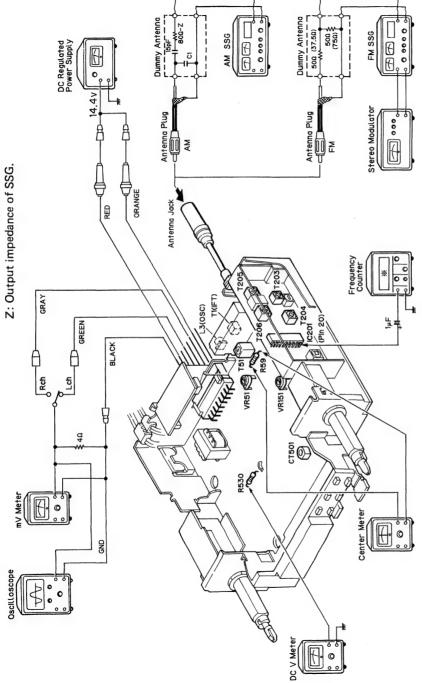
- Play "A" side of STD-341A (10kHz, -20dB). Adjust each screw for maximum output in forward and reverse directions.
  - 2. Play "B" side in forward and reverse directions to confirm adjustment.

## 7.2 TAPE SPEED ADJUSTMENT

- Connection Diagram (shown in Fg. 18)
- To adjust
- 1. Reproduce STD-301 (3kHz, -10dB). Adjust the semi-fixed resistor so that the frequency counter shows 3,010Hz (+30Hz, -30Hz).

## 7.3 FM IF ADJUSTMENT

### Connection Diagram



To Adjust

- 1. Apply a signal of 98.1MHz, 400Hz, 100% modulation and 60dB ( $\mu$ V) from the FM SSG and tuner 98.1MHz.
  - Adjust T51 to make the center meter show 0.  $^{\circ}$

## 7.4 AUTO LEVEL ADJUSTMENT

## Connection Diagram (Shwon in Fig. 19)

### To Adjust

- Set SSG at 98.1MHz and tune using the tuning button. Set SSG to an output level of 35 dB ( $\mu$ V), and adjust VR151 to a separation of 5 dB (between the right and left channels).

### NOTICE:

Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.

## 7.5 FM SCAN SENSITIVITY

Fig. 19

\* 2070kHz: KE-3232/UC, 3011/US, 2222/UC, 2515/US 2052kHz: KE-3232/ES, 2222/ES

## Connection Diagram (Shown in Fig. 19)

### To Adjust

- Turn off the Local Station Seek switch.
- a 98.1MHz (400Hz, 100% modulation) output level 25dB (µV) signal from the SSG. Add 5
- Push the SEEK button, and adjust VR51 so that the SEEK stops. က
- Set the SSG output level to 14dB ( $\mu$ V). And check to make sure that the SEEK doesn't stop. 4.
  - Check to make sure that the SEEK stops when the SSG Push the Local Station Seek switch and set it to Loc.S. 6.5
    - output level is 47  $\pm 10$ dB ( $\mu$ V).
- If it is not within specifications, repeat the procedure starting at step one.

## 7.6 AM (MW) TRACKING ADJUSTMENT

## • Connection Diagram (shown in Fig. 19)

## • To Adjust (KE-3232/ES, 2222/ES)

Frequency of AM SSG	Displayed Frequency	Adjusting Point	DC V Meter	mV Meter
1.	1,602 kHz	For Confirmation only	Less than 7.4V	
2.	531 kHz	For Confirmation only	More than 0.7V	
3. 603 kHz (400 Hz, 30% modulation) output level 25 dB ( $\mu$ V)	603 kHz	T203, T204 T205, T206		Maximum output
603 kHz 4. 999 kHz (400 Hz, 30% modulation) 1,395 kHz output level 35 dB (μV)	603 kHz 999 kHz 1,395 kHz	For Confir- mation Only		The difference between the maximum and minimum output levels at 603 kHz, 999 kHz, and 1,395 kHz must be 6 dB or less.

# To Adjust (KE-3232/UC, 3011/US, 2222/UC, 2515/US)

Frequency of AM SSG	Displayed Frequency	Adjusting Point	DC V Meter	mV Meter
-	1,620 kHz	For Confirmation only	Less than 7.4V	
2.	530 kHz	For Confirmation only 0.7V	More than 0.7V	
3. 600 kHz (400 Hz, 30% modulation) output level 25 dB ( $\mu$ V)	600 kHz	T203, T204 T205, T206		Maximum output
600 kHz 4. 1,000 kHz (400 Hz, 30% modulation) 1,400 kHz output level 35 dB (µV)	600 kHz 1,000 kHz 1,400 kHz	For Confirmation Only		The difference between the maximum and minimum output levles at 600 kHz, 1,000 kHz, and 1,400 kHz must be 6 dB or less.

## 7.7 FM TRACKING ADJUSTMENT

## • Connection Diagram (shown in Fig. 19)

## To Adjust (KE-3232/ES, 2222/ES)

	Displayed	Adireting	> 20	
Frequency of FM SSG	Frequency	Point	Meter	mV Meter
1.	108 MHz	61	Less than 7.4V	
2.	87.5 MHz		More than 1.6V	
3. 98.1 MHz (400Hz, 100% modulation) output level $5 \sim 10 \text{ dB}$ ( $\nu$ V)	98.1MHz	F		Maximum output

# To Adjust (KE-3232/UC, 3011/US, 2222/UC, 2515/US)

Frequency of FM SSG	Displayed Frequency	Adjusting Point	DC V Meter	mV Meter
1.	107.9 MHz	13	Less than 7.4V	
2.	87.9 MHz		More than 1.6V	
3. 98.1 MHz (400 Hz, 100% modulation) output level $5\sim 10$ dB ( $\mu$ V)	98.1 MHz	Т1		Maximum output

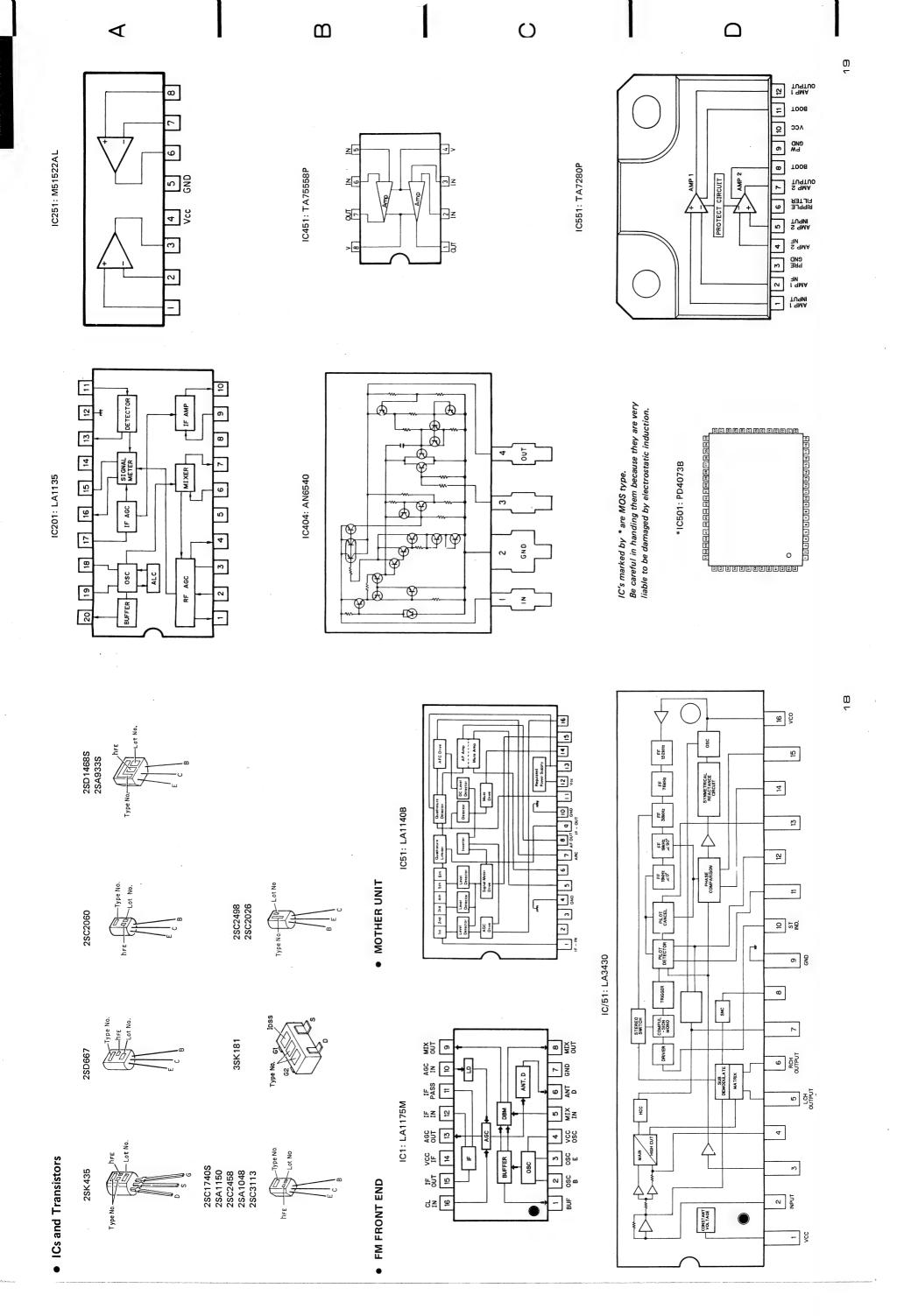
# 7.8 REFERENCE OSCILLATION FREQUENCY ADJUSTMENT

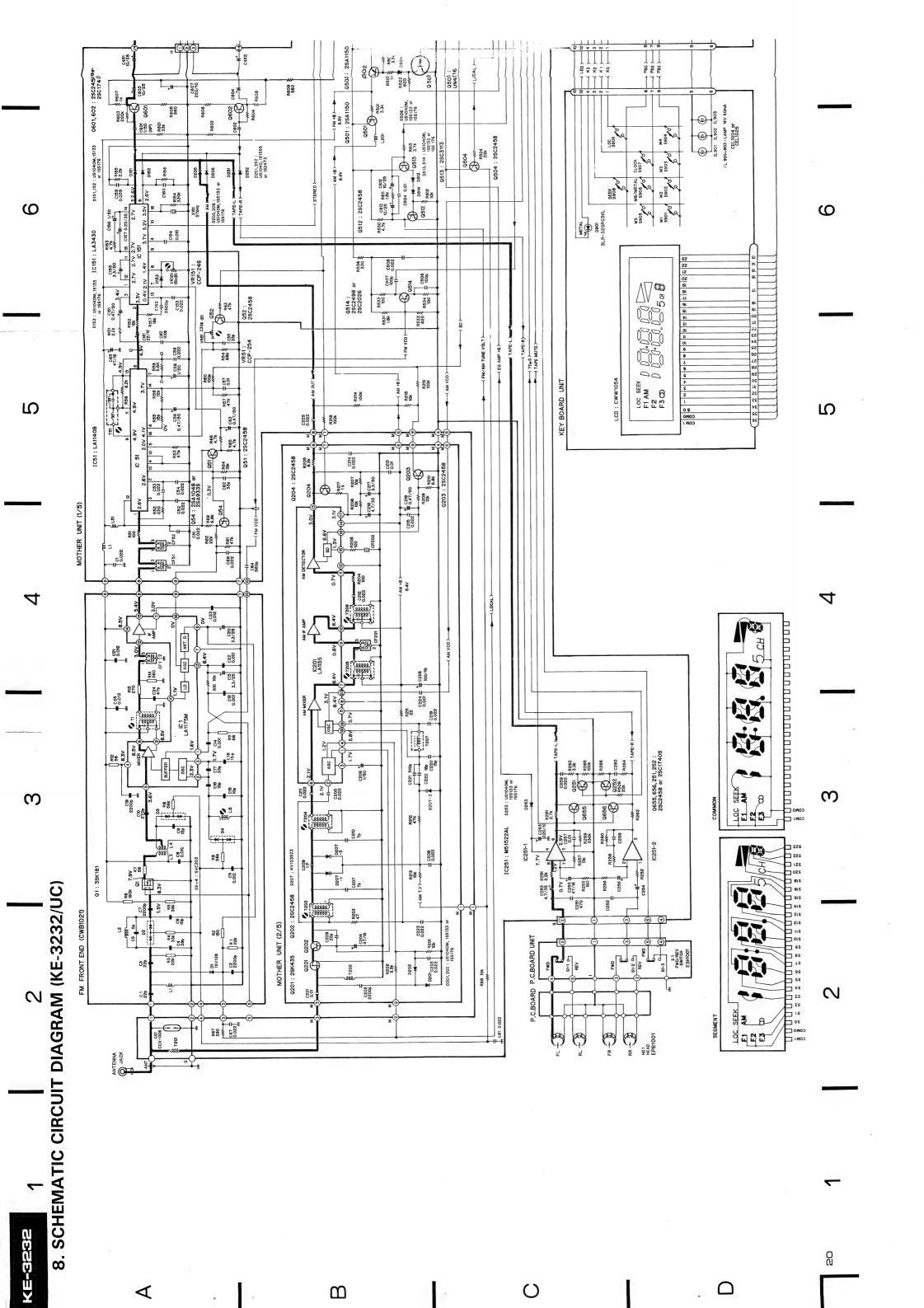
## • Connection Diagram (shown in Fig. 19)

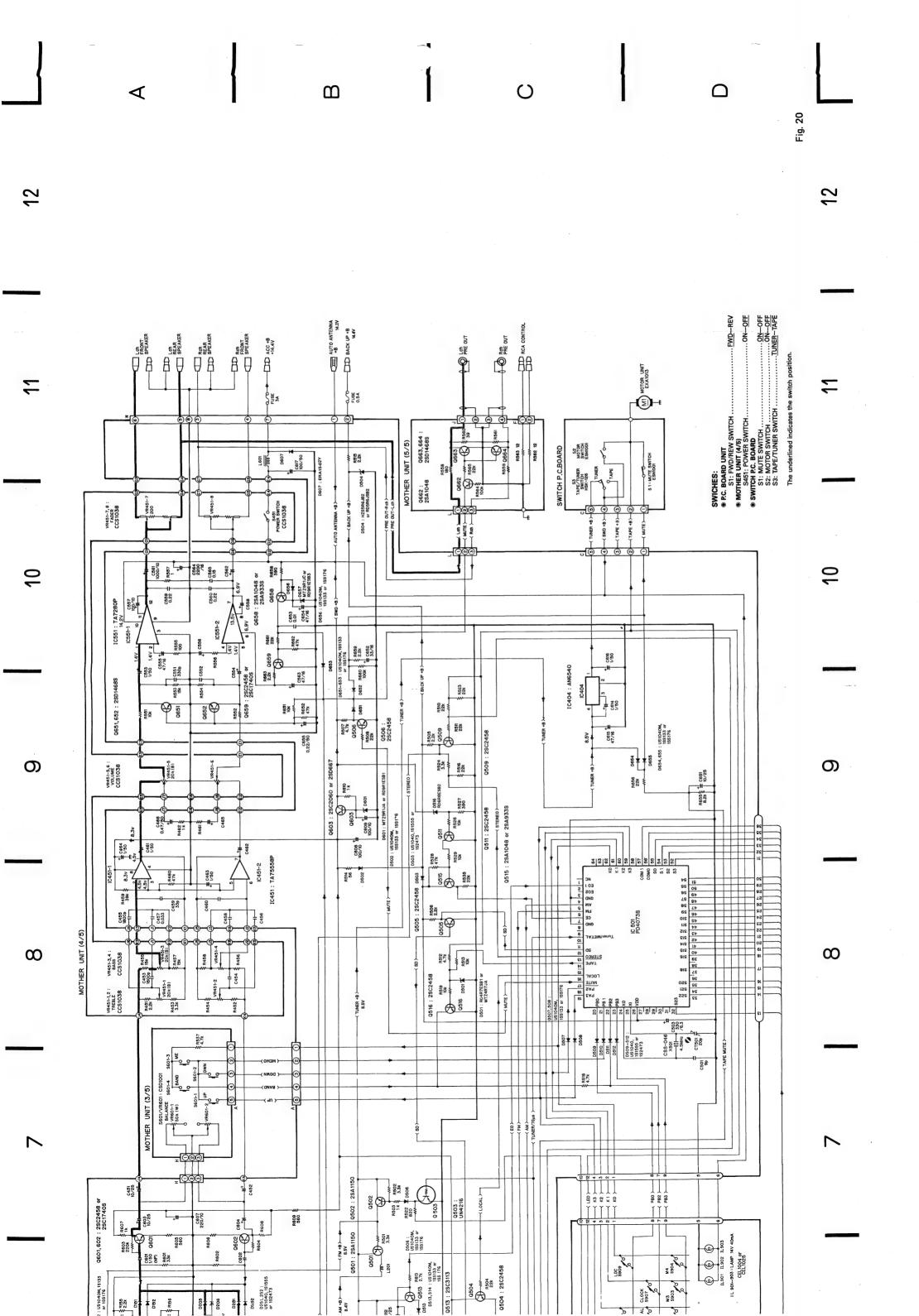
# To Adjust (KE-3232/UC, 3011/US, 2222/UC, 2515/US)

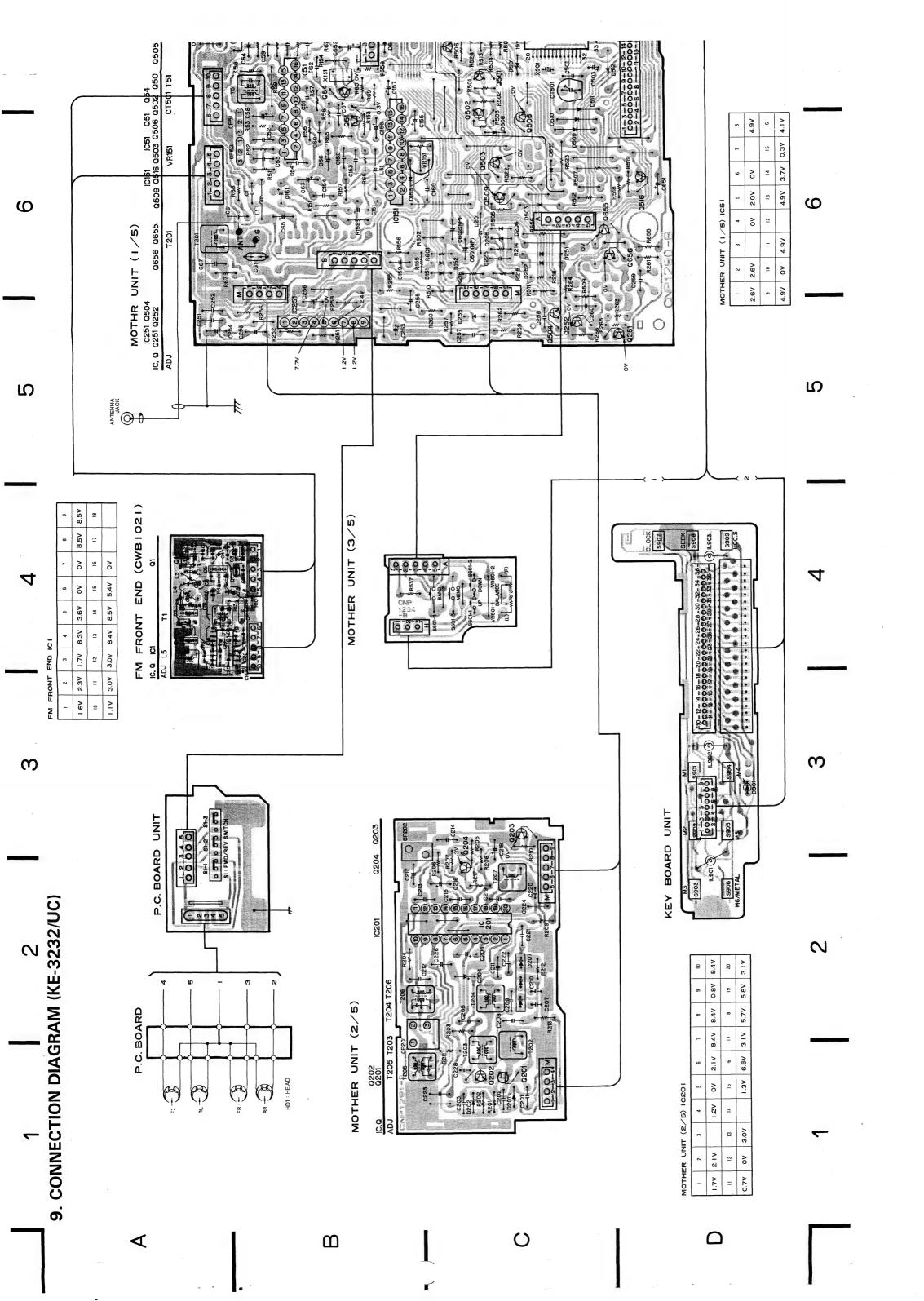
Set the AM position.
 Set the LCD display to 1620KHz.
 Adjust CT501 sot that the frequency counter display becomes 2070kHz ±40Hz.

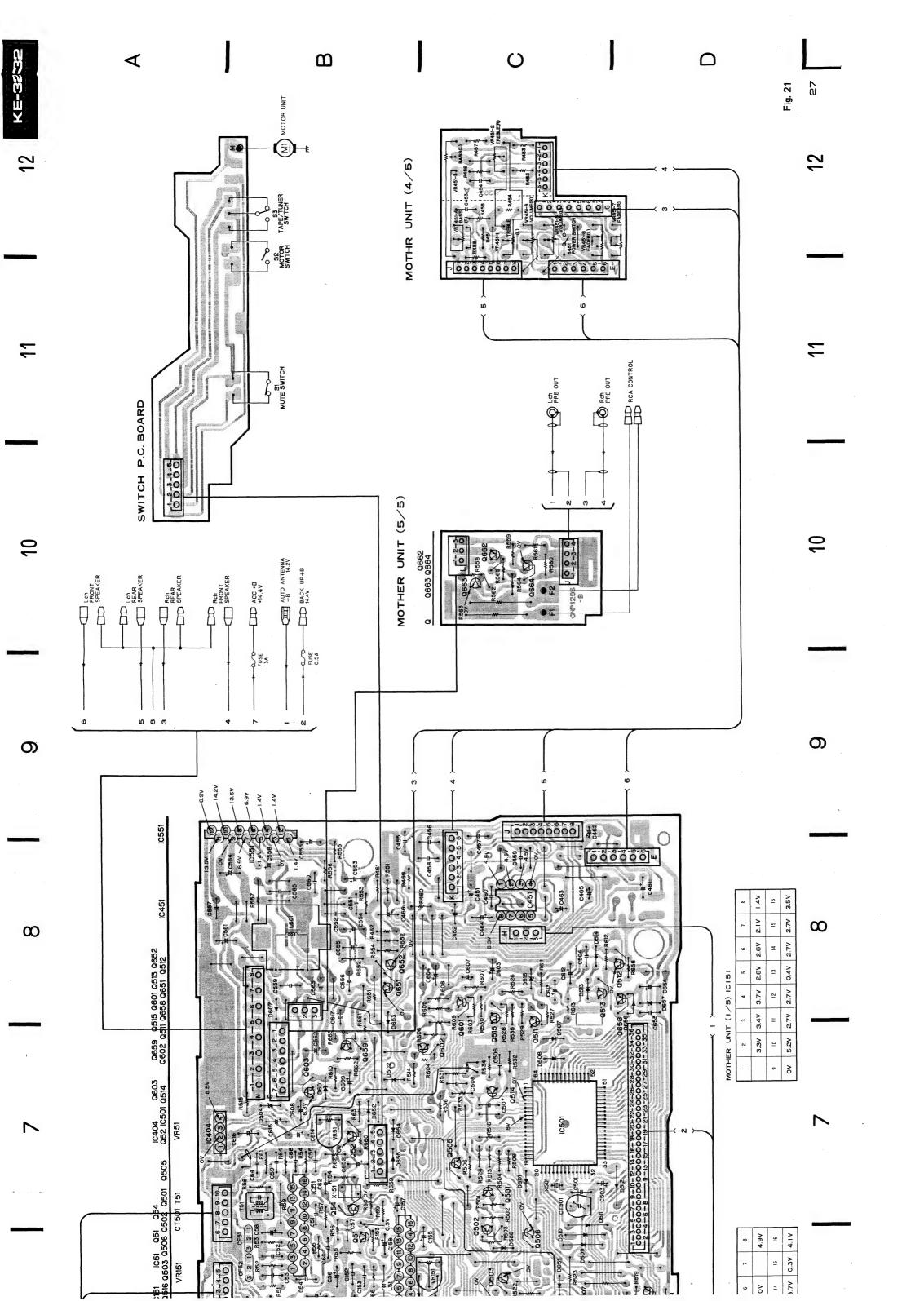
To Adjust (KE-3232/ES, 2222/ES)
Set the AM position.
Set the LCD display to 1602KHz.
Adjust CT501 so that the frequency counter display becomes 2052kHz ±40Hz.

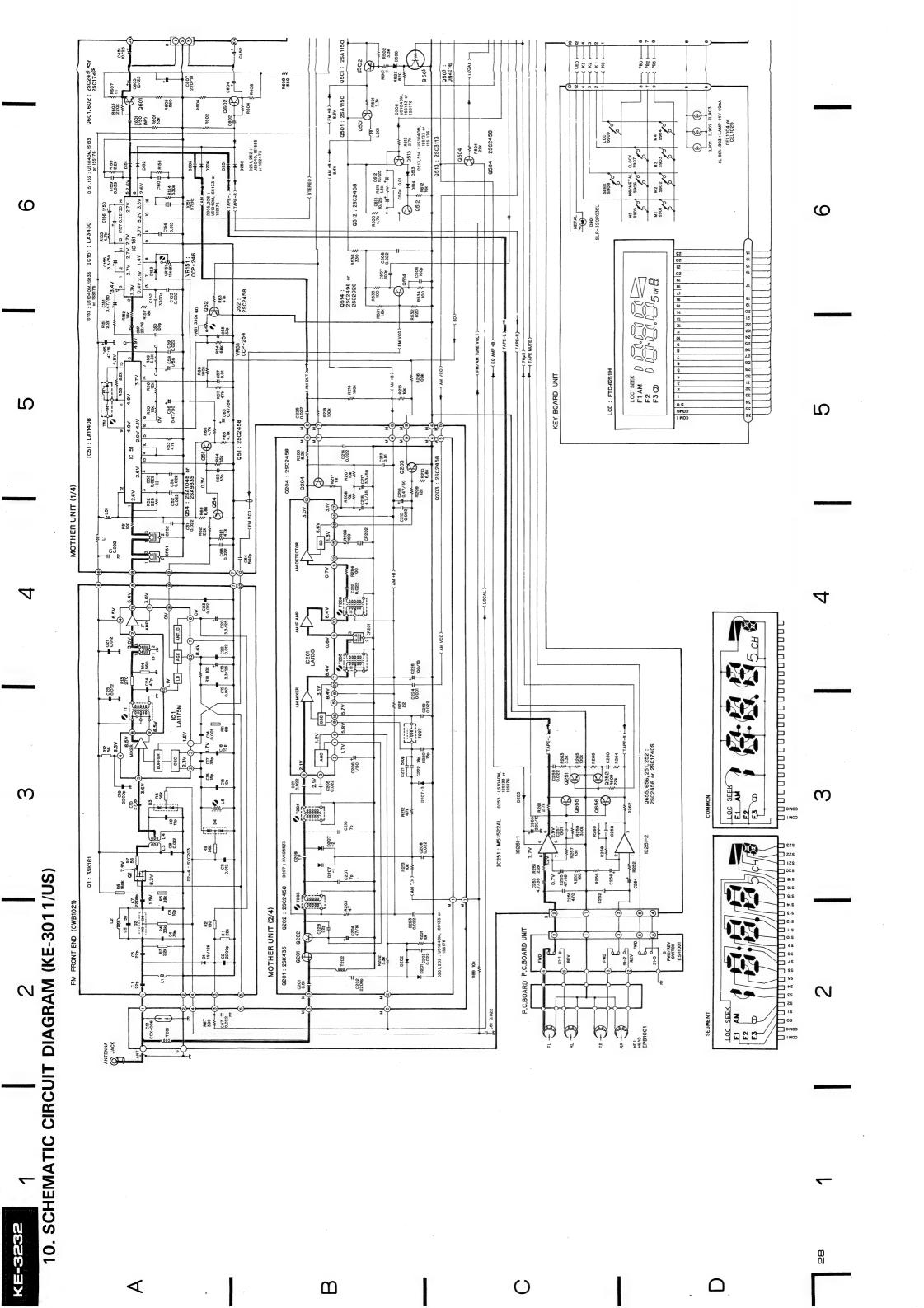


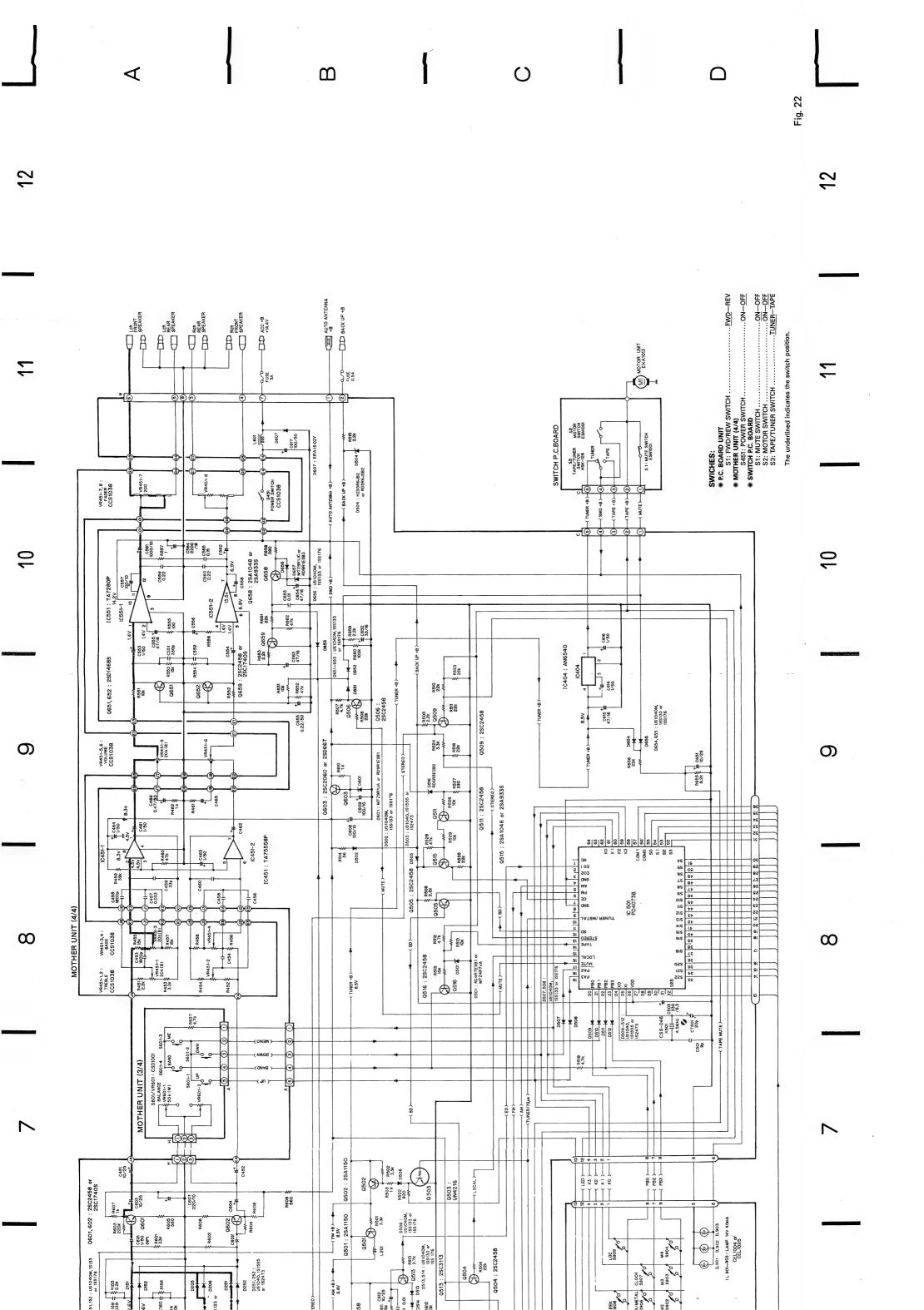


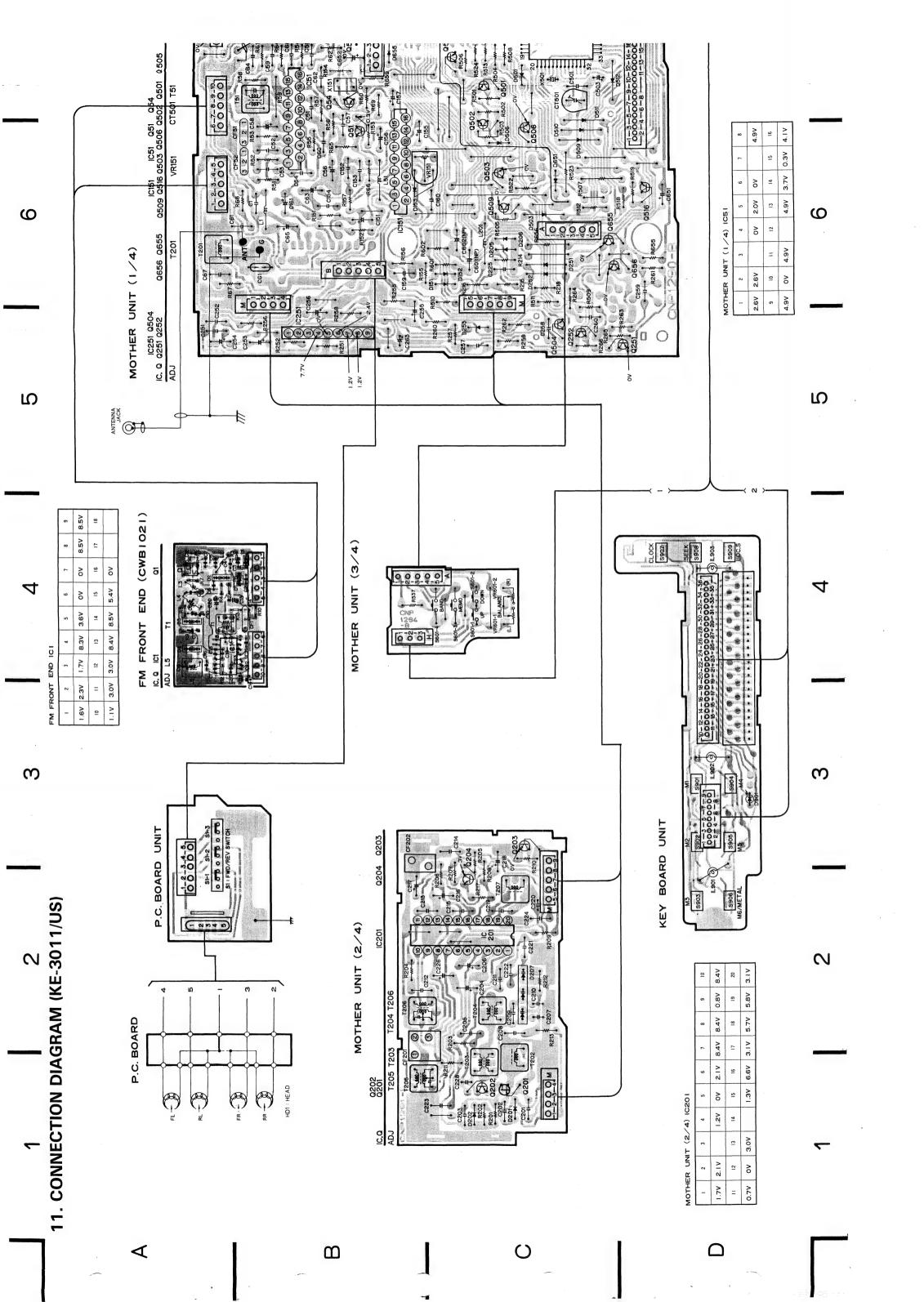


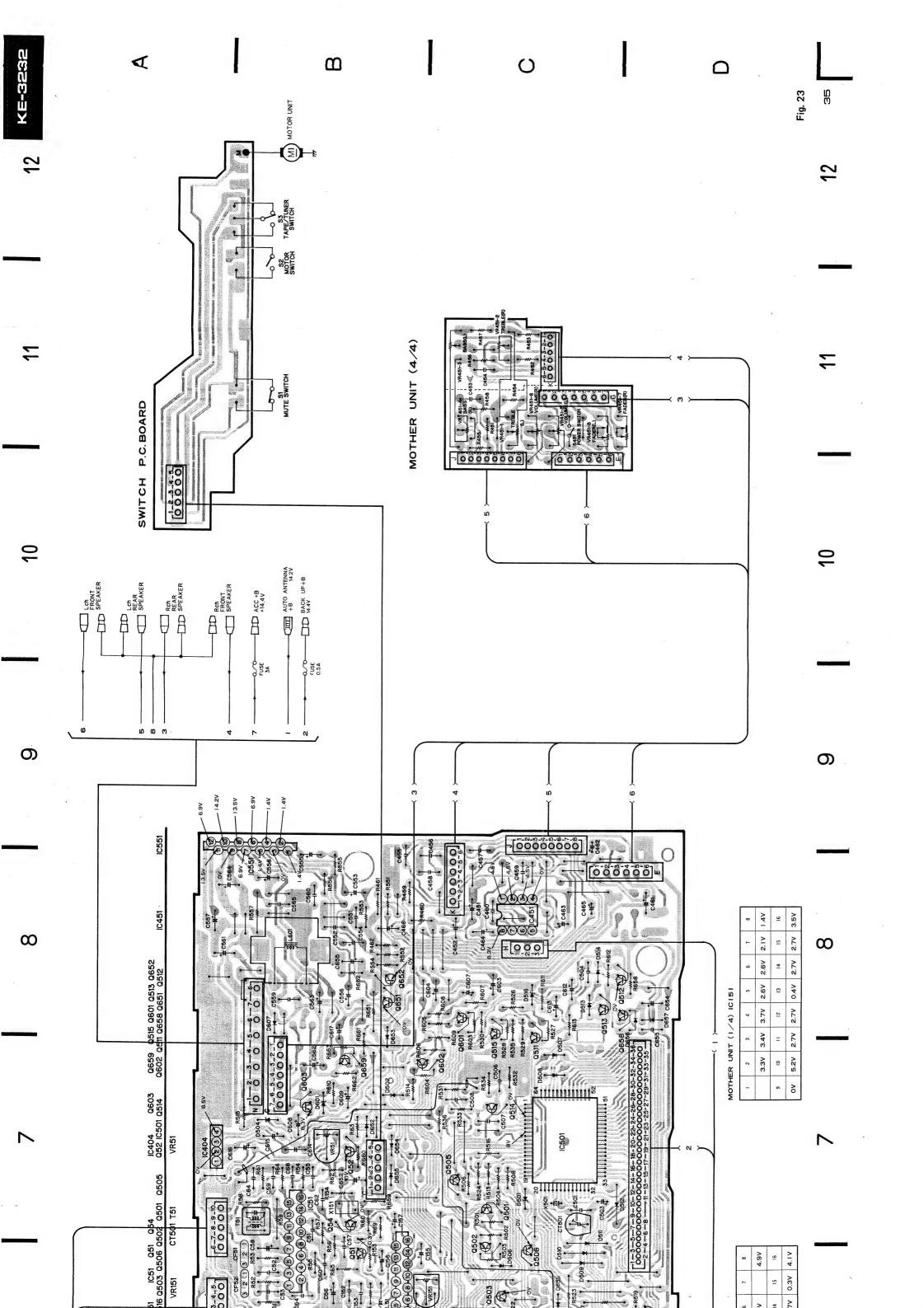


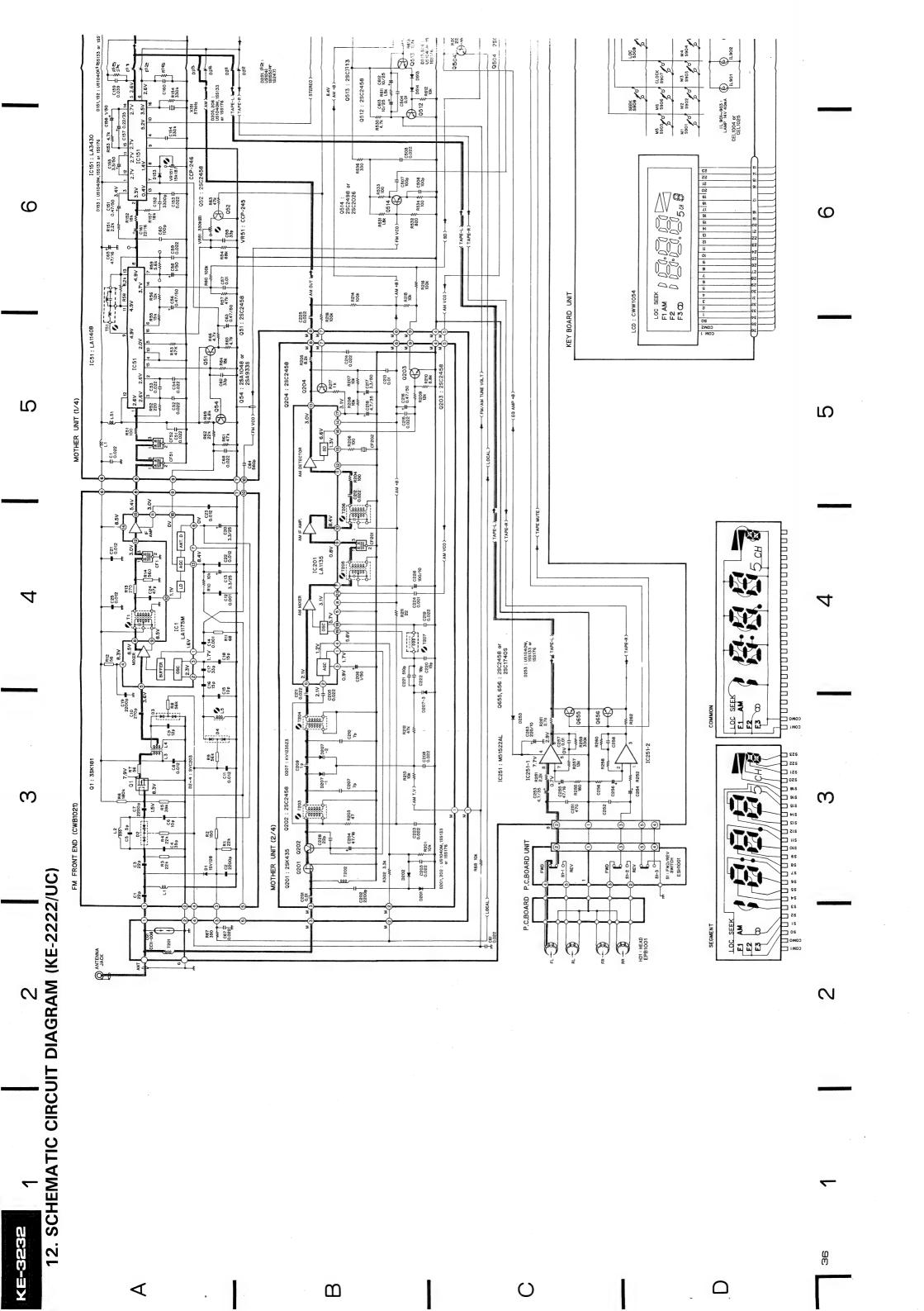


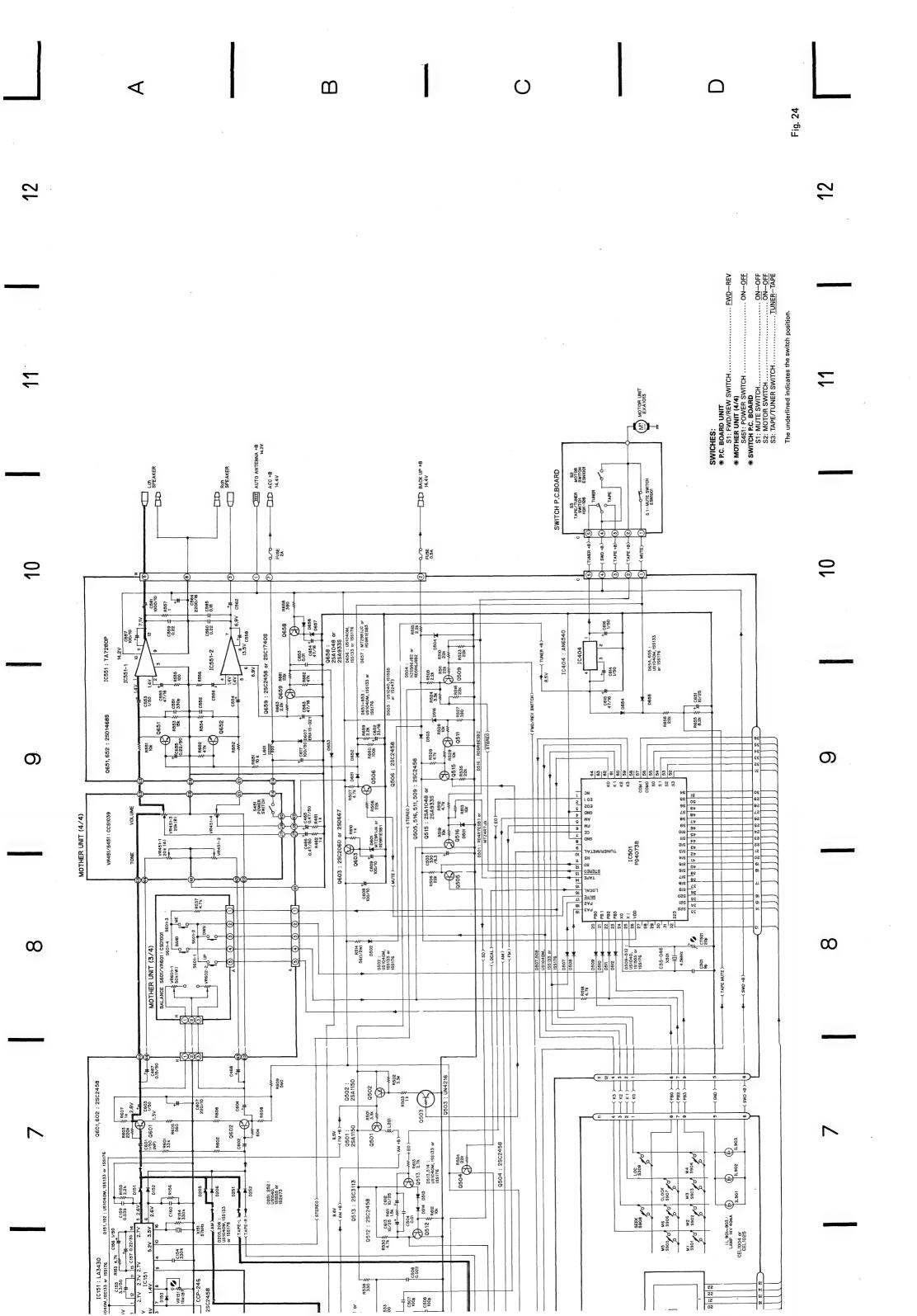


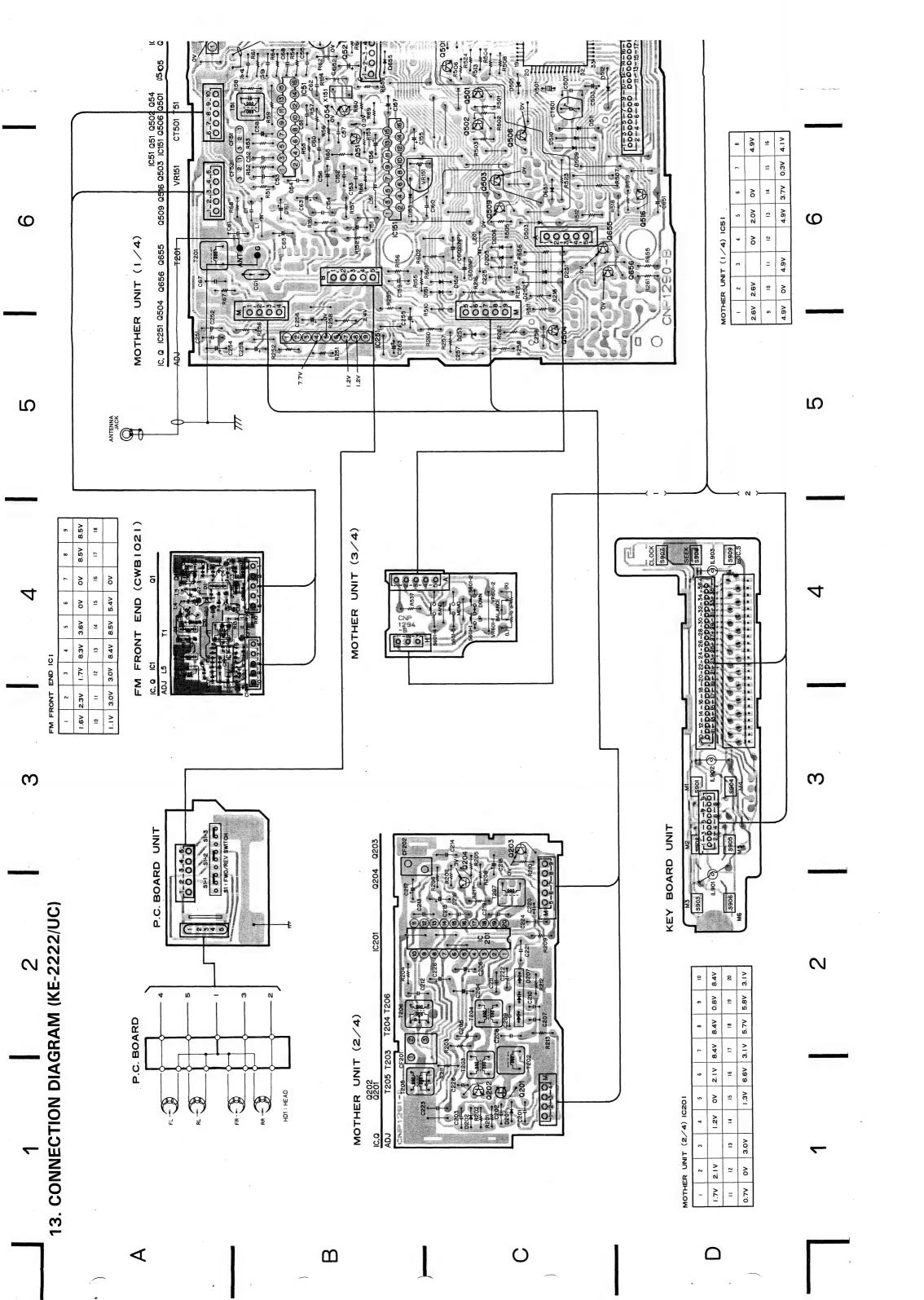


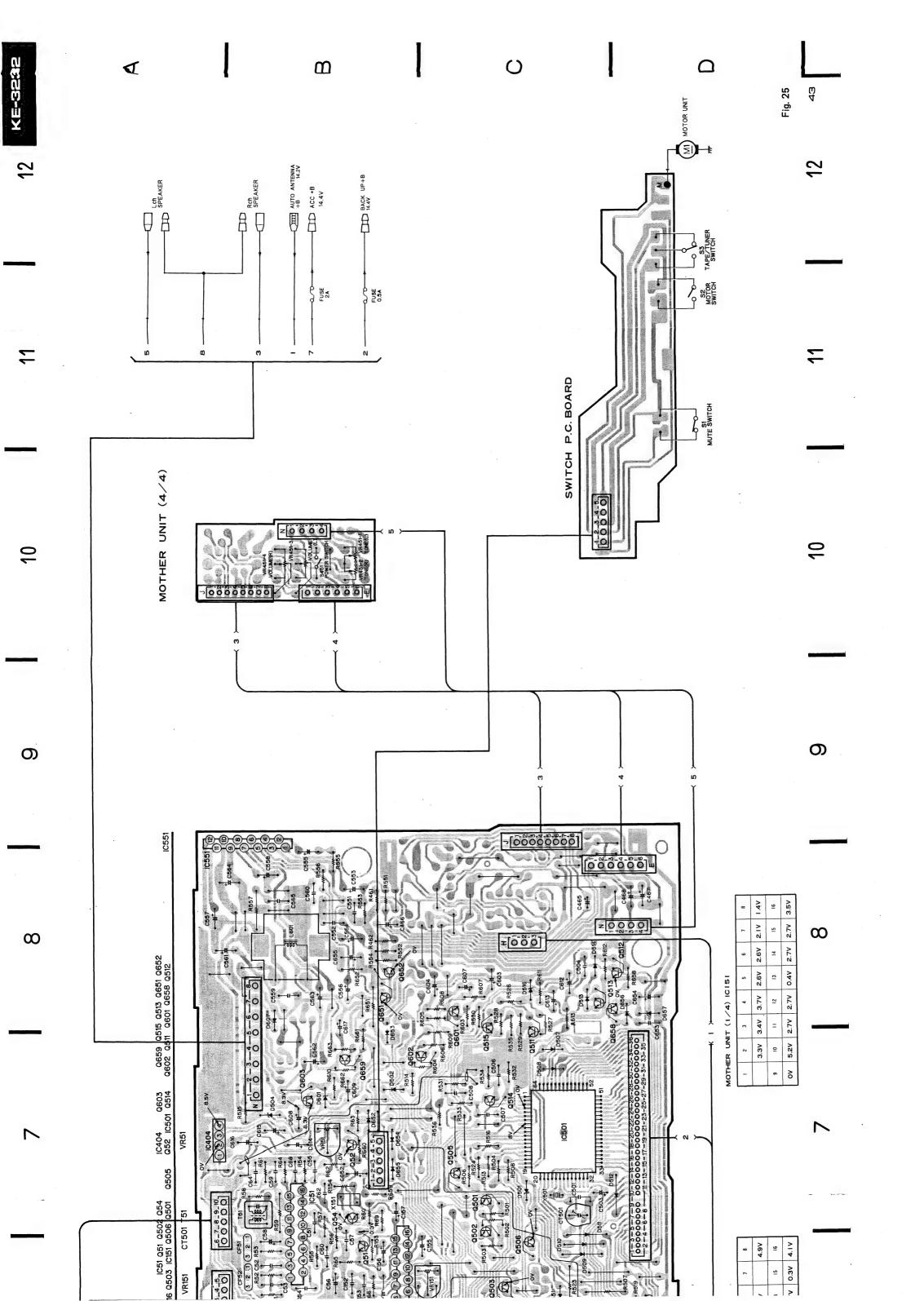


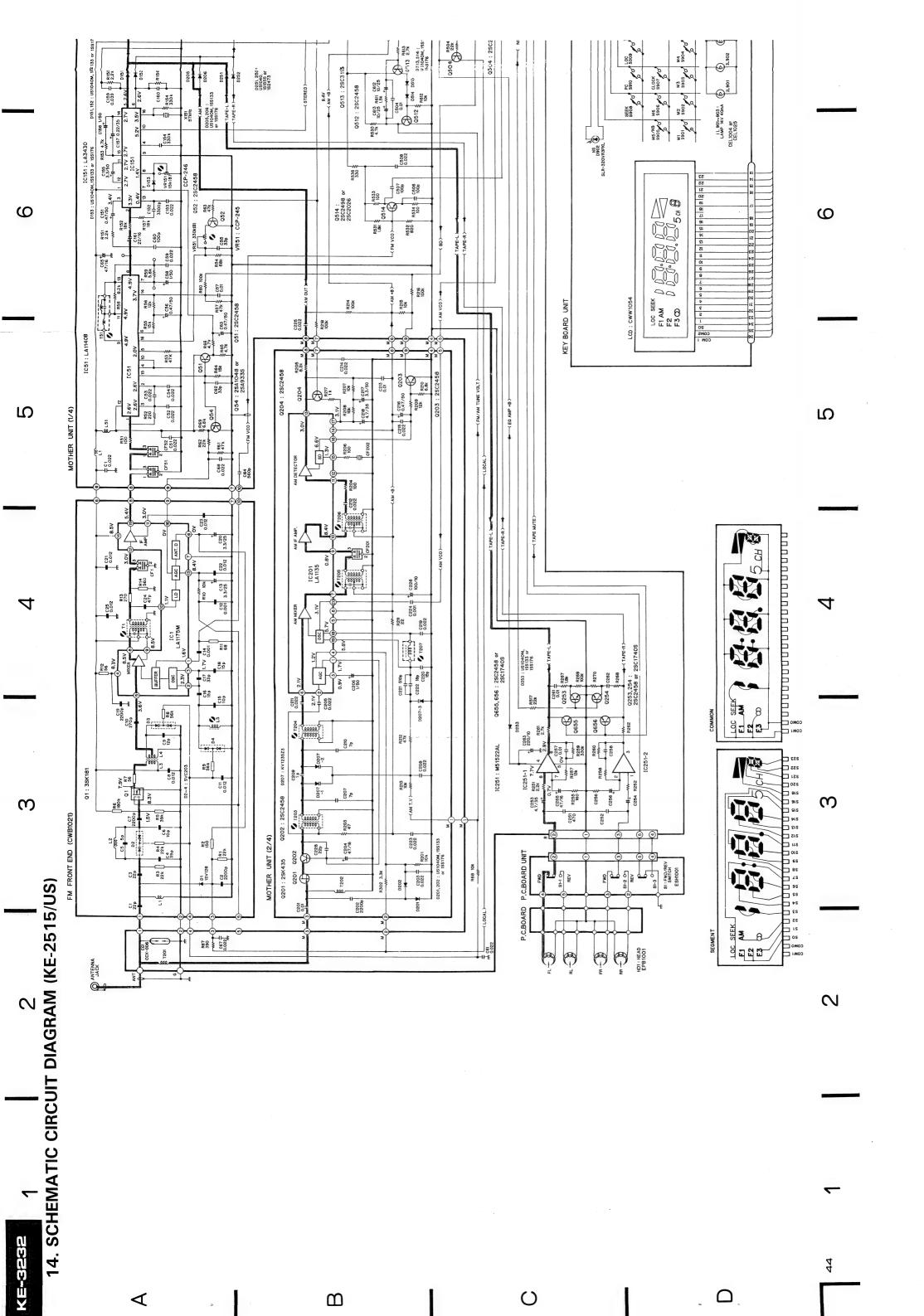


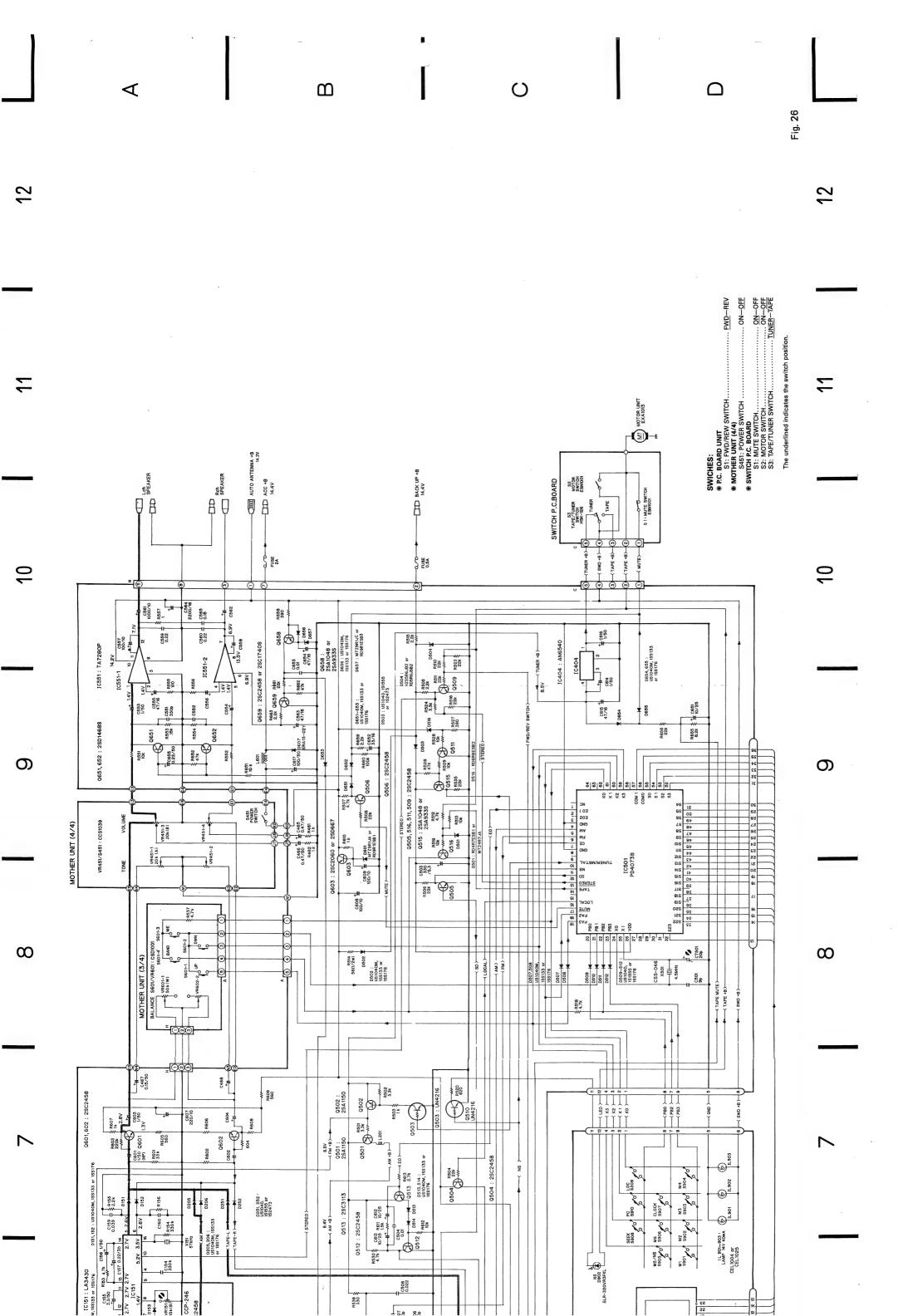


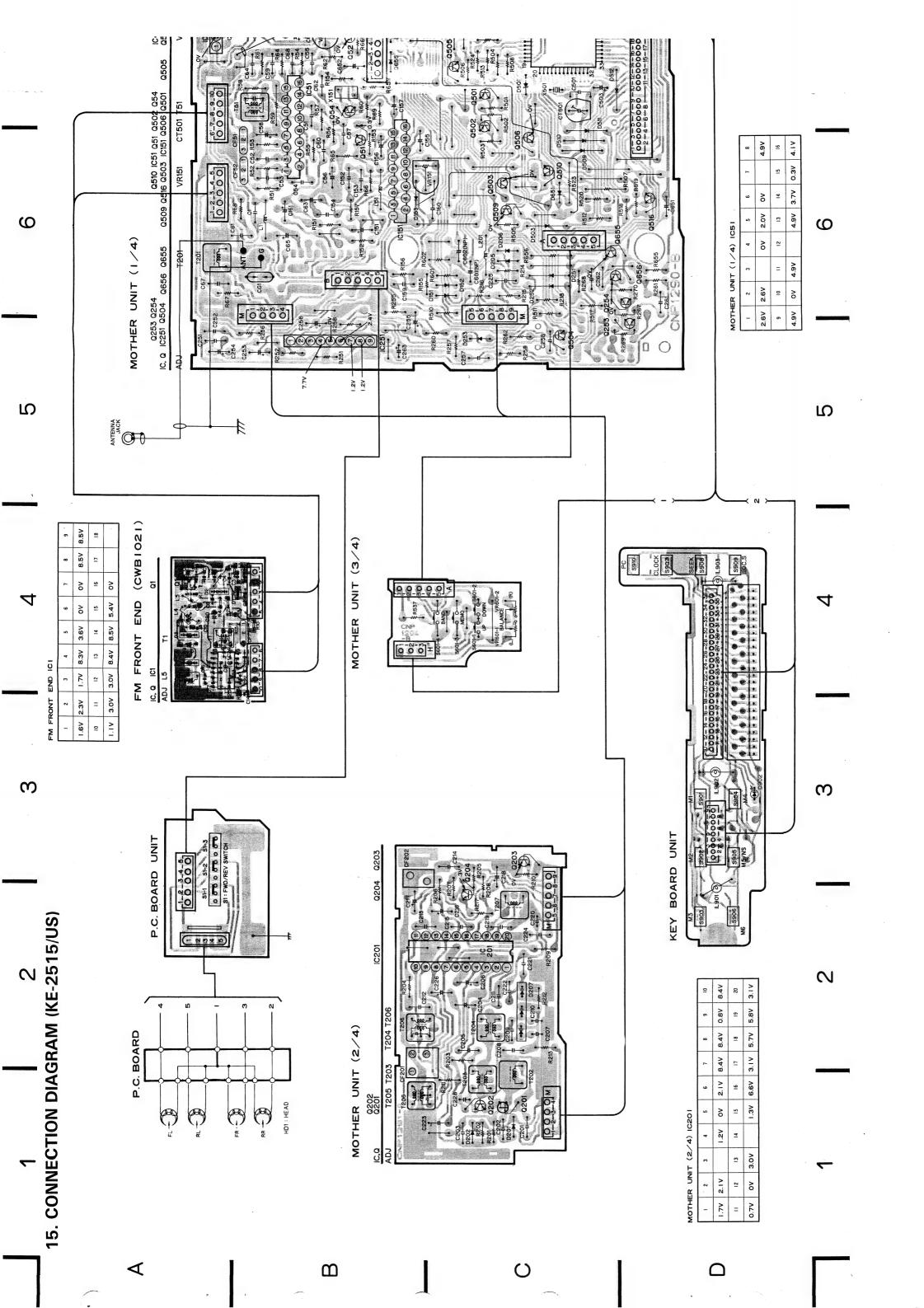


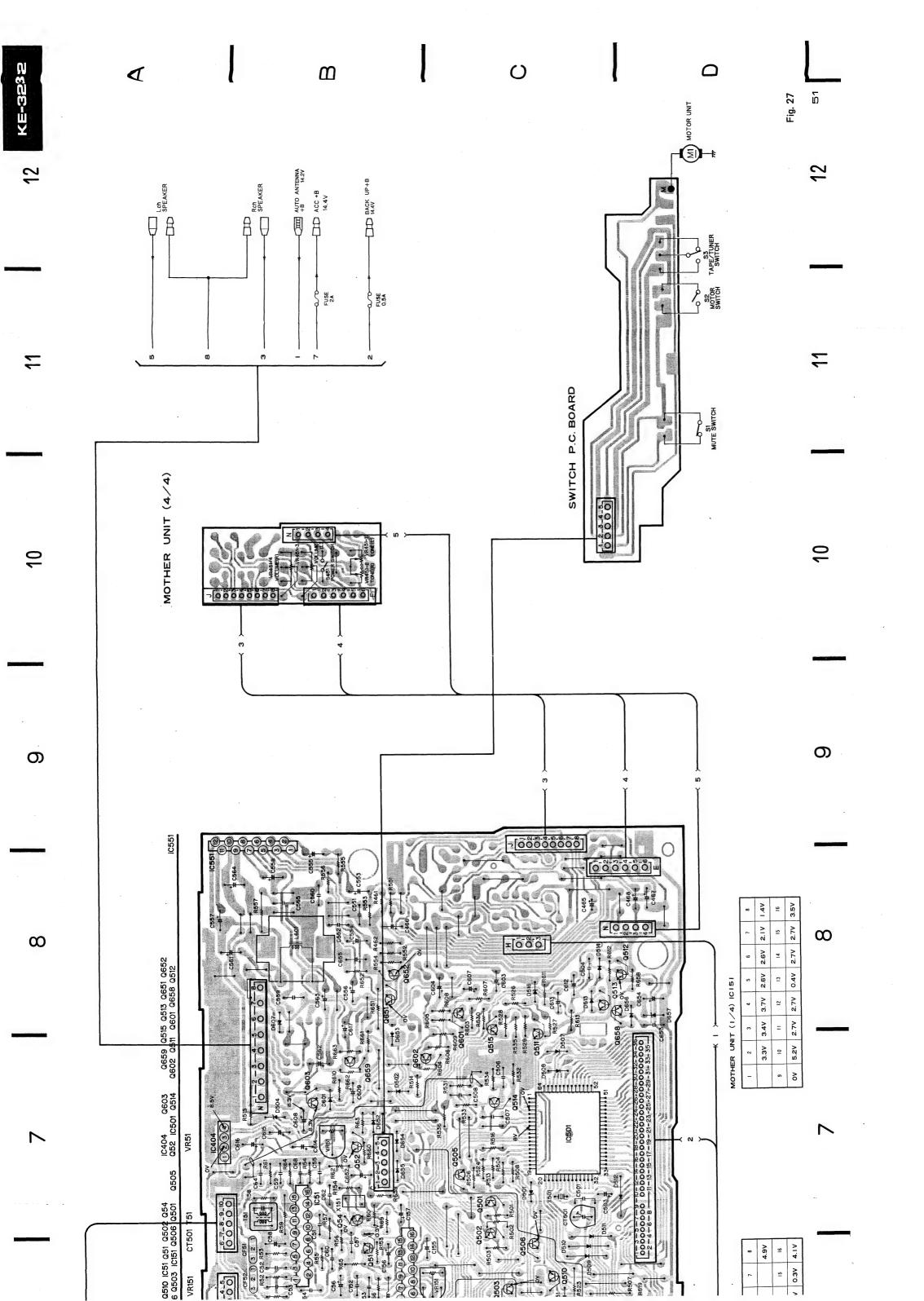


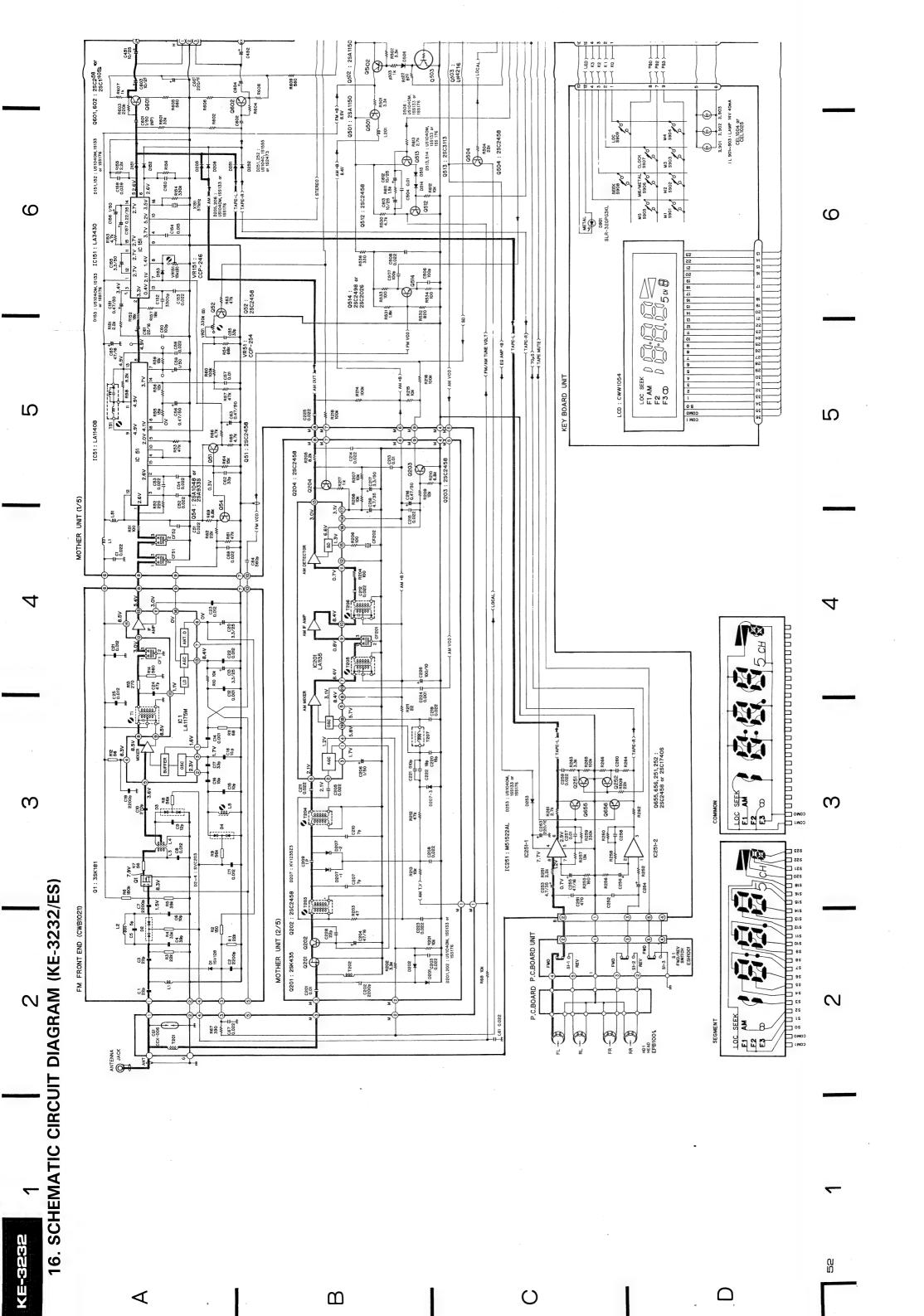


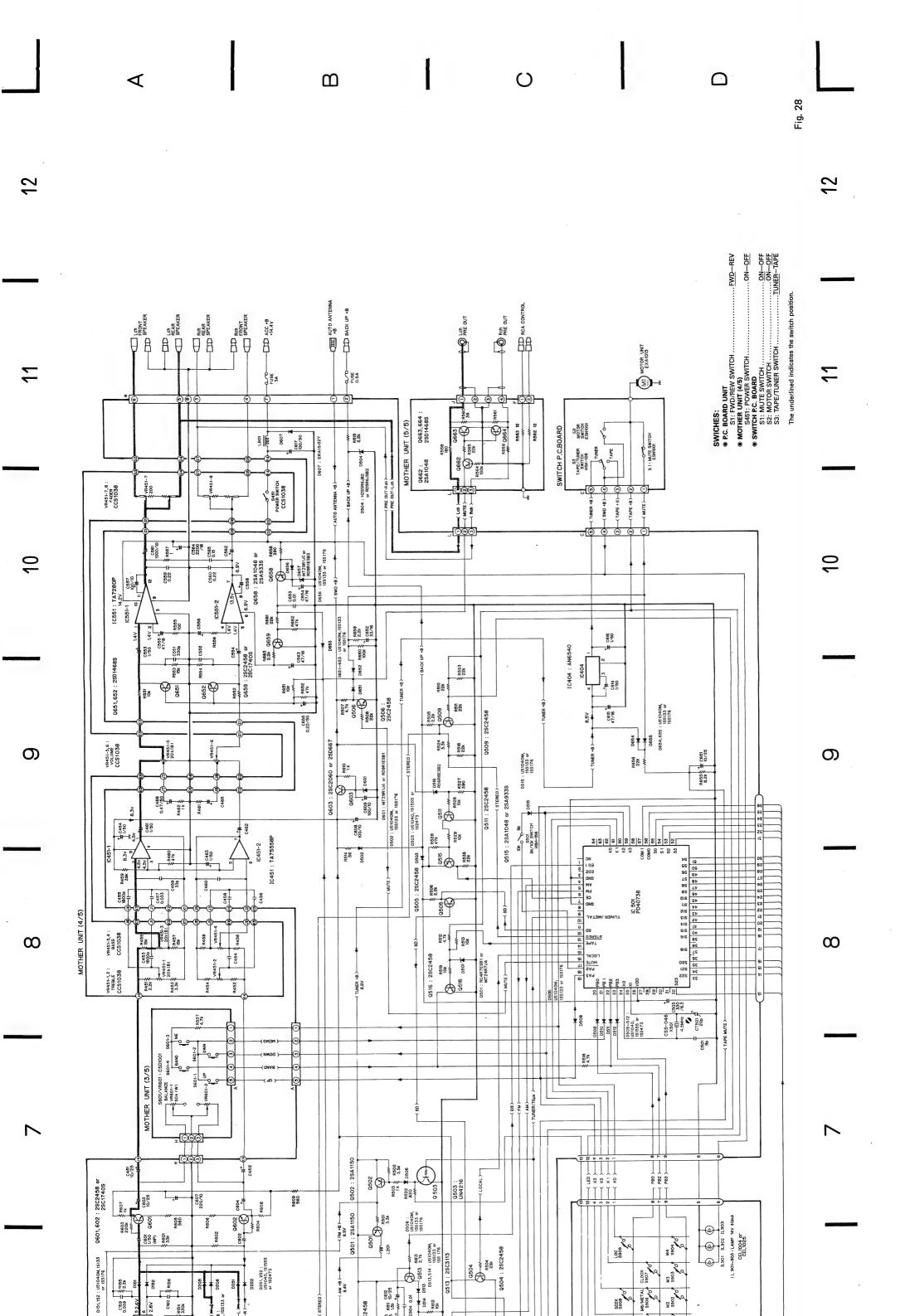


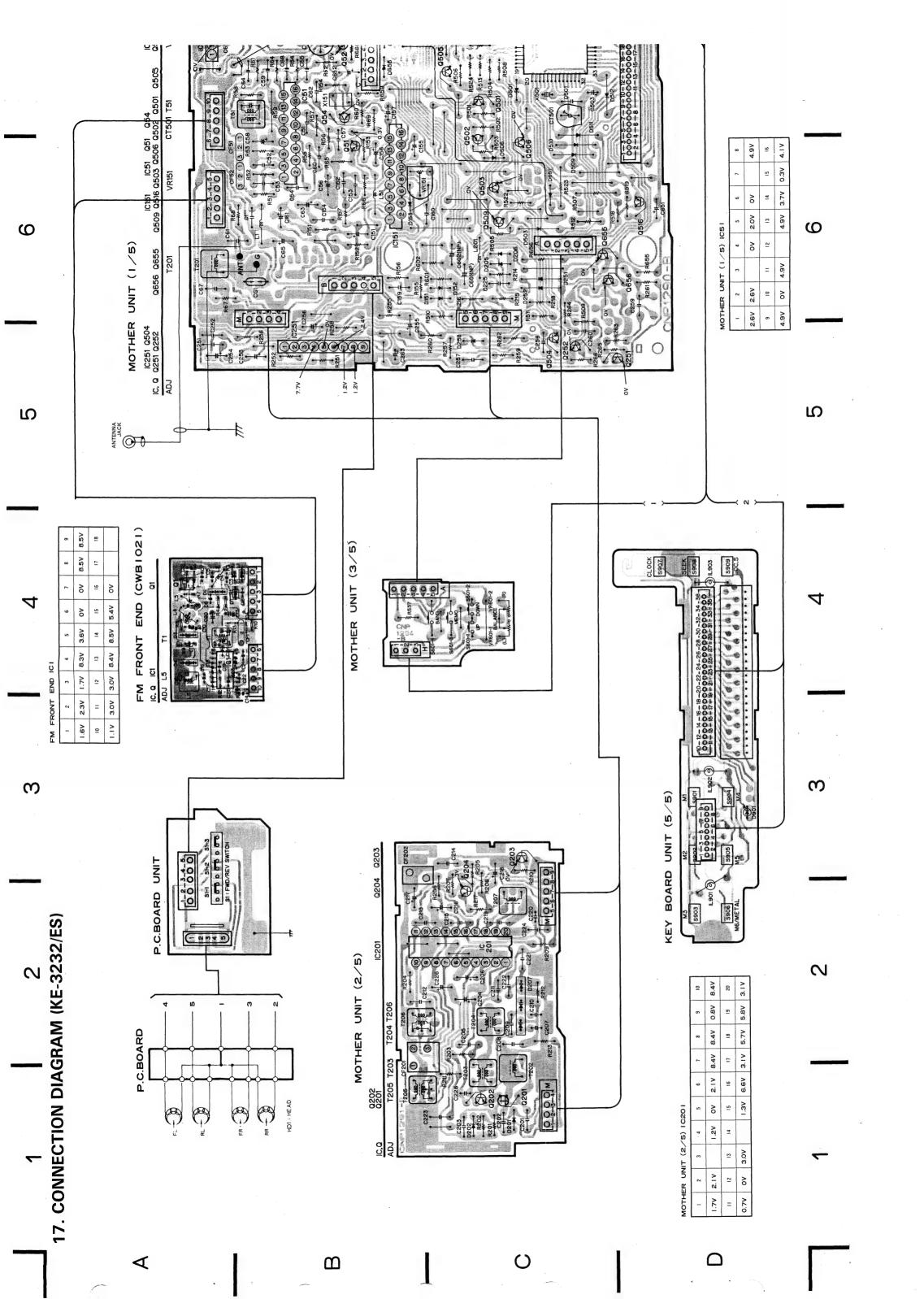


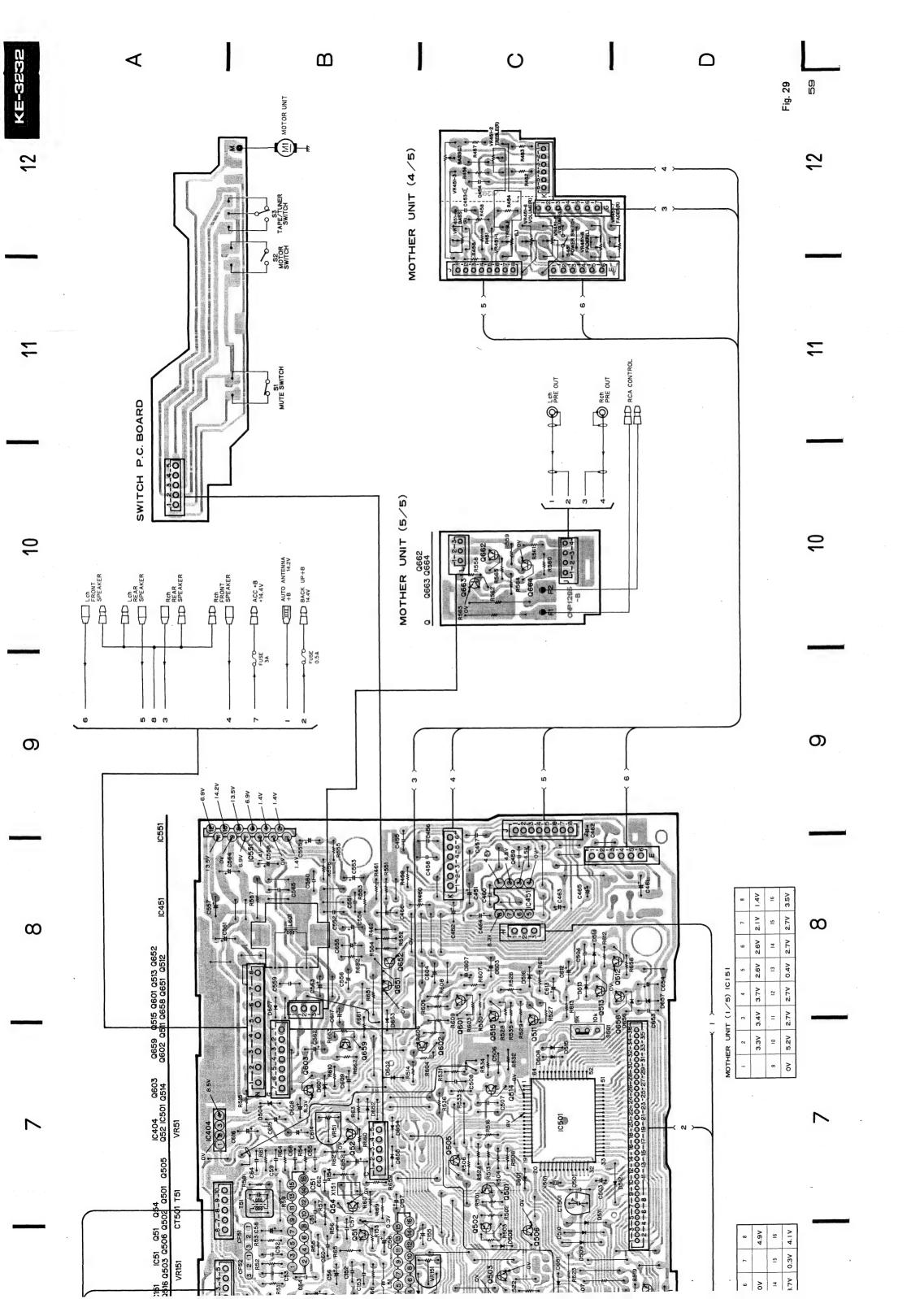


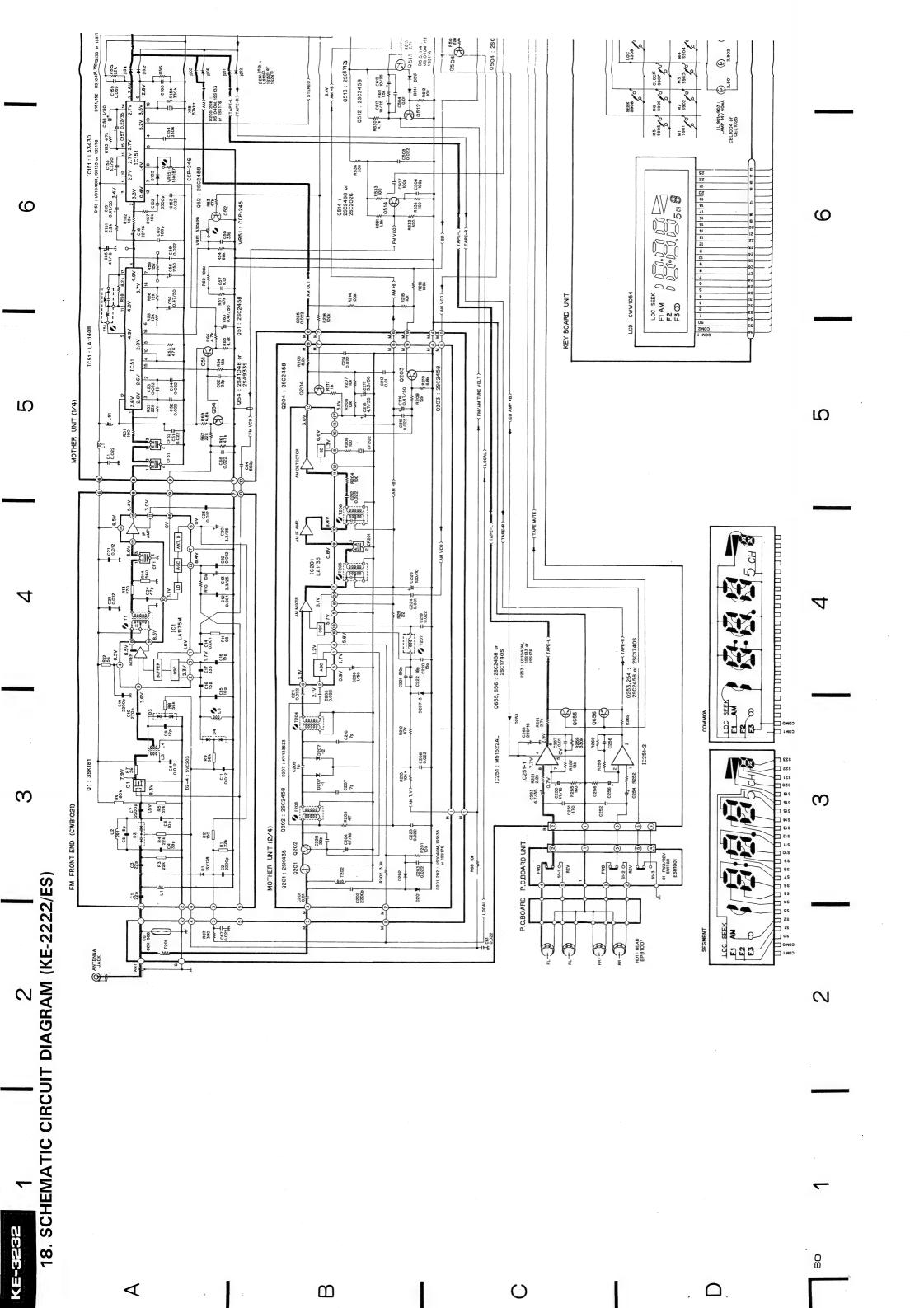


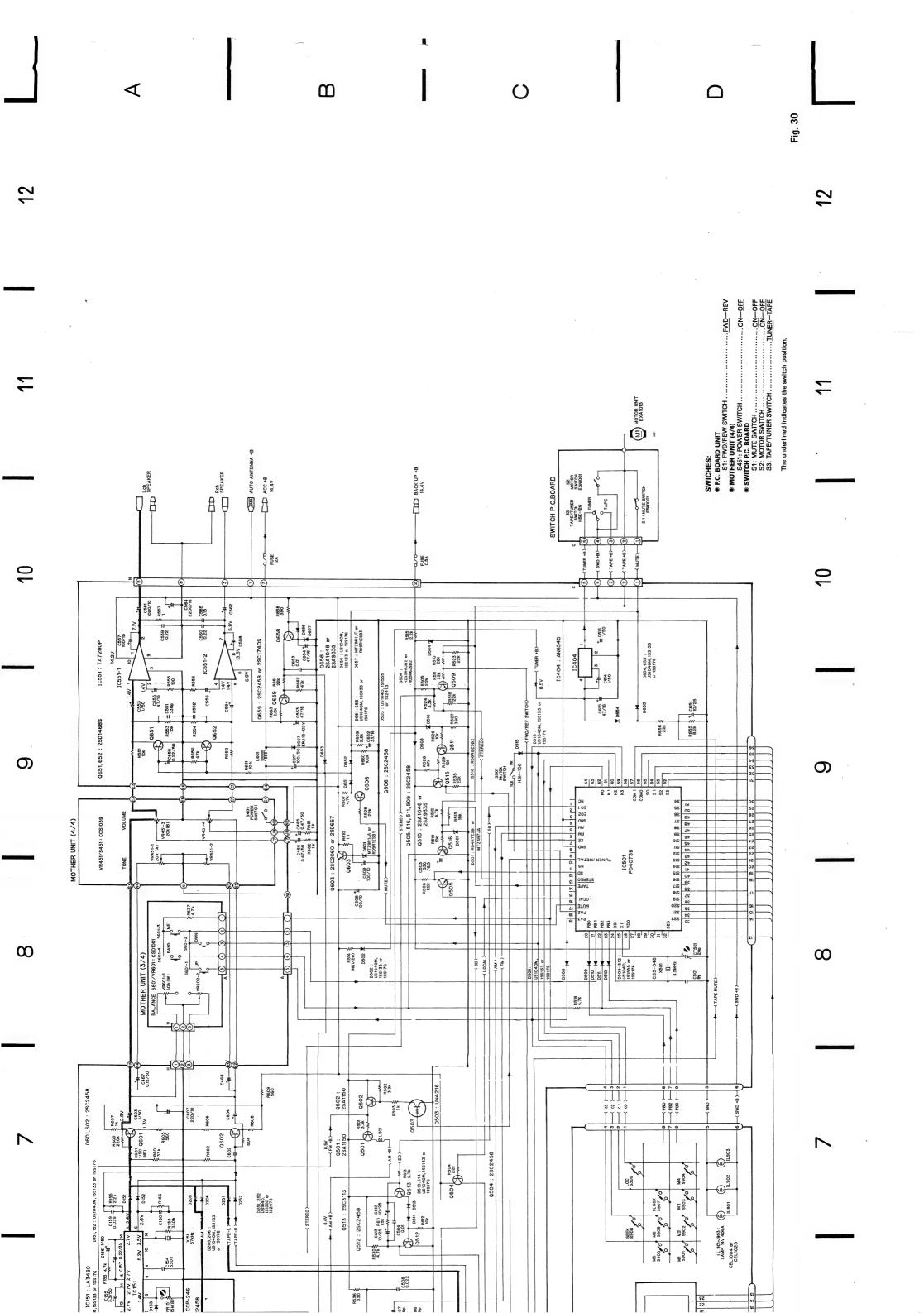


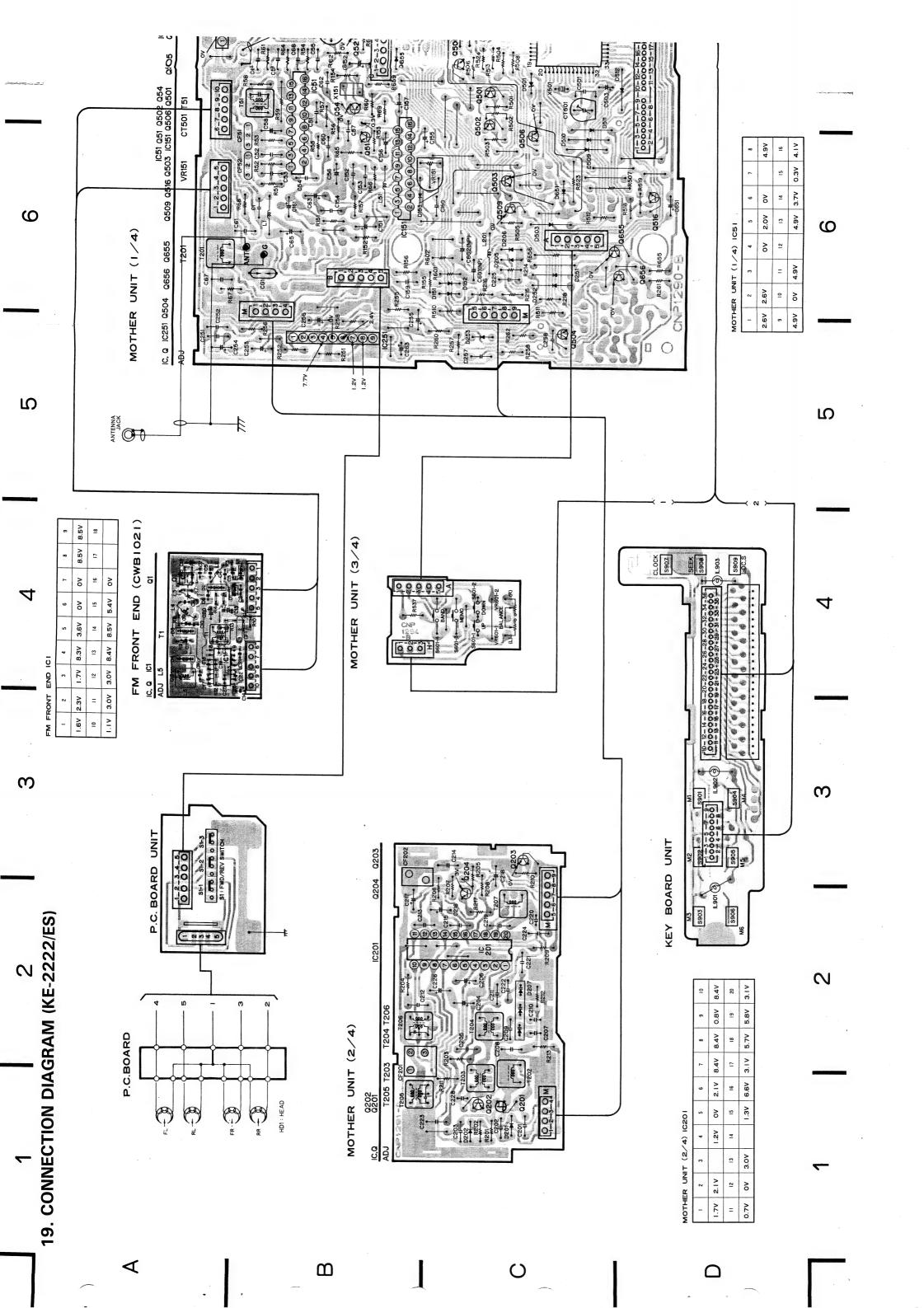


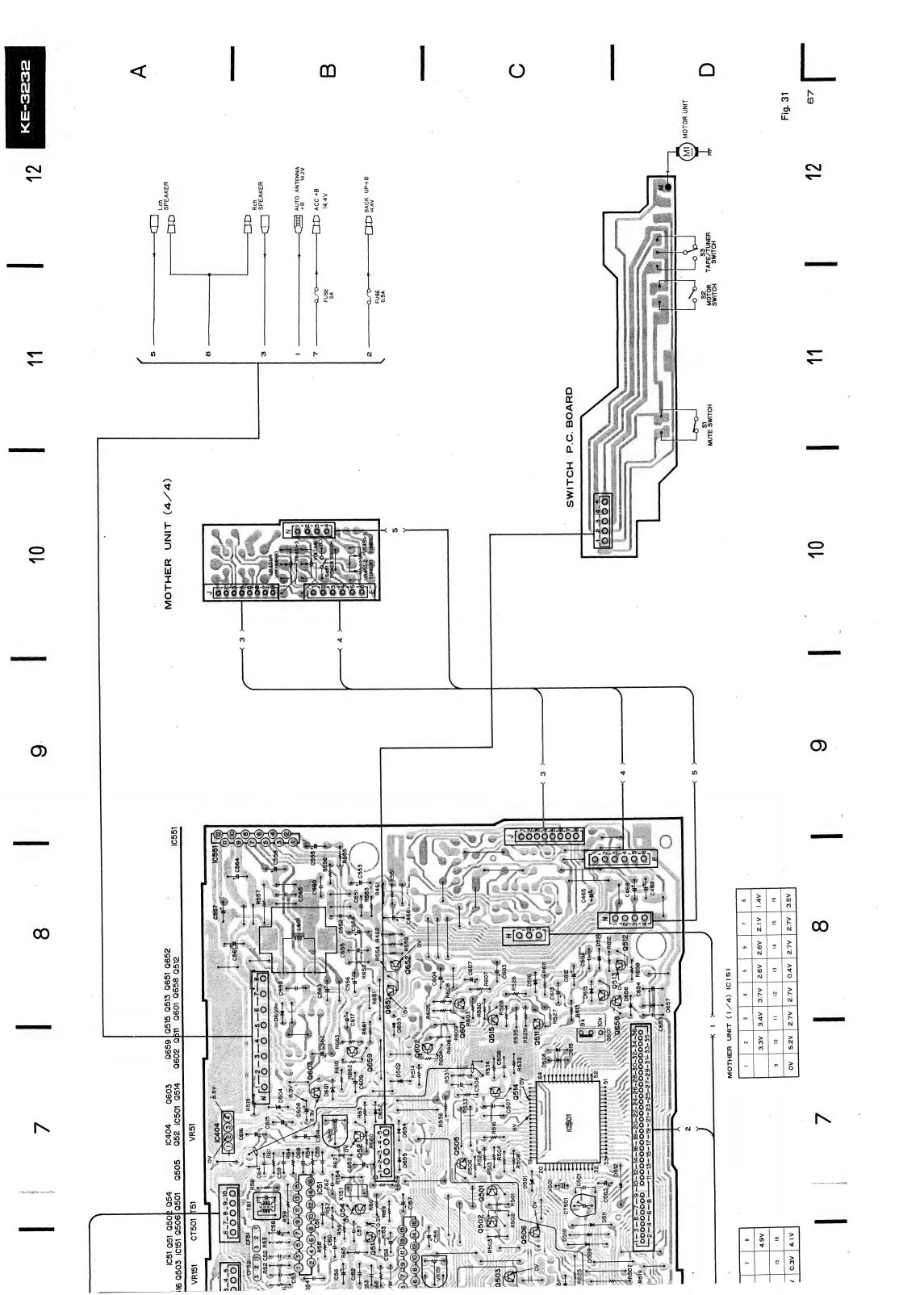


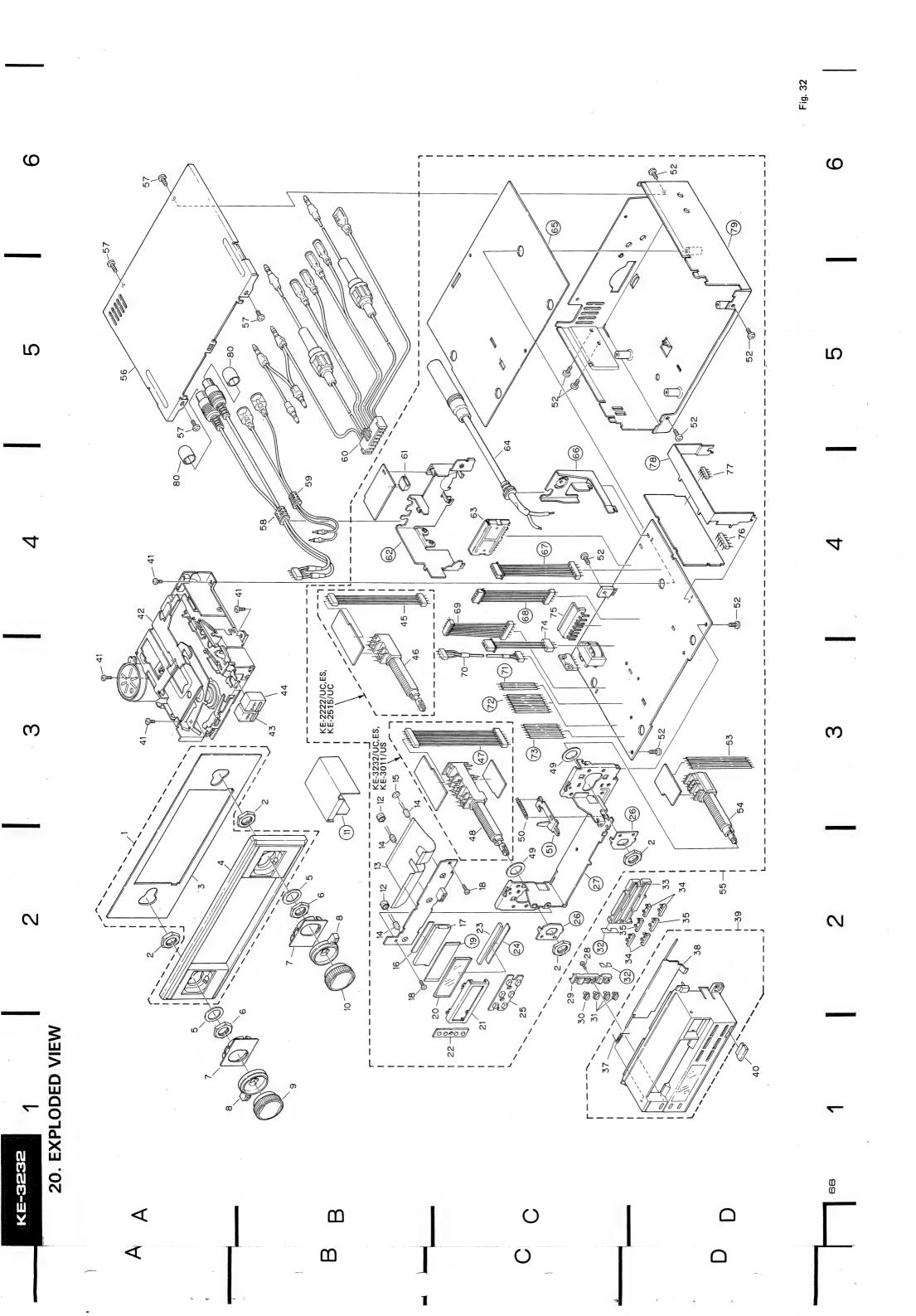












## Parts List

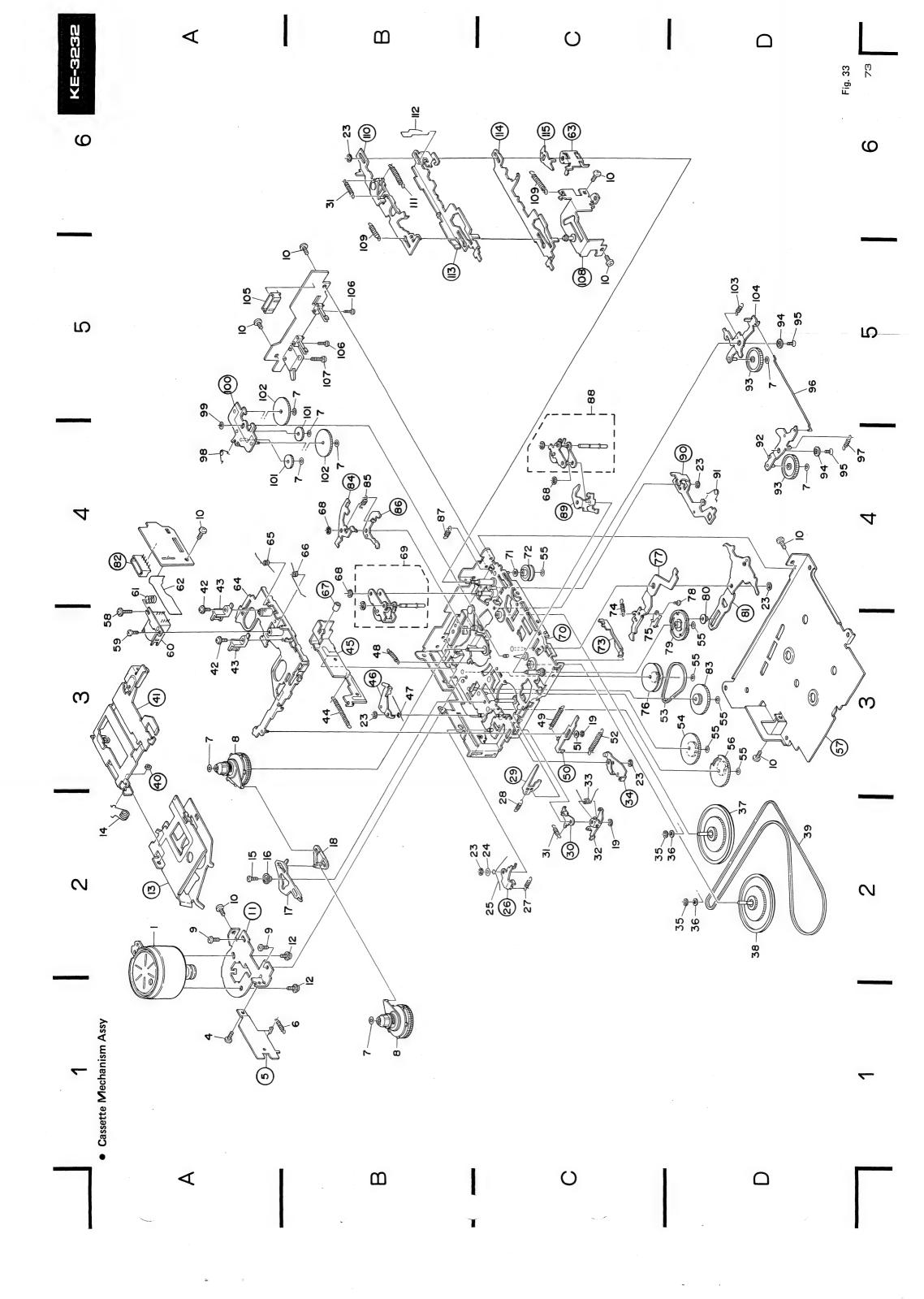
NOTE:
For your parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.
★★: GENERALLY MOVES FASTER THAN ★.
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
Parts whose parts numbers are omitted are subject to being not supplied.
Parts marked by "®" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

											- make agent allo		** .						*					
Description	Grille Unit (KE-3232/UC, ES) Grille Unit (KE-2222/UC, ES) Grille Unit (KE-3011/US) Grille Unit (KE-2515/US)	Button (KE-3232/UC, ES, 2222/UC, ES, 2515/US) Button (KE-3011/US)	Screw Cassette Mechanism Assy Button (KE-3232/UC, ES,	Button (KE-3011/US) Button (KE-3232/UC, ES, 2222/UC, ES, 2515/US)	Button (KE-3011/US) Connector (KE-2222/UC, ES,	Volume/switch (KE-2222/UC, ES, 2515/US)	Connecotr (KE-3232/UC, ES, 3011/US) Volume/switch (KE-3232/UC, 5011/UC)	Spacer ES, 3011/03/ Spring	Lever Screw Connector Volume/switch	Tuner Amp Assy (KE-3232/UC) Tuner Amp Assy (KE-3232/ES)	Tuner Amp Assy (NE-2222/CS) Tuner Amp Assy (KE-3021/CS) Tuenr Amp Assy (KE-3011/US)	Tuner Amp Assy (KE-2515/US) Case	Screw Connector (KE-3232/UC, ES) Cord Assay (KE-2727/HC ES)	Cord Assy (KE-3232/UC, ES,	3011/US) Plug (KE-3232/UC, ES)	Heat Sink FM Front End Antenna Cable	Insulator Holder Connector (5P)	Connector (5P) Connector (6P) (KE-3232/UC, FS 3011/11S)	Connector (3P) (KE-2222/UC,	ES, 2515/US) Connector (8P) (KE-3232/UC, ES, 3011/US)	Connector (6P) Connector (3P) (KE-3232/UC,	Plug (8P) Plug (5P)	Holder Chassis Unit Carl (KE-3737/110 ES)	
Part No.	CXA1583 CXA1584 CXA1585 CXA1586	CAC1354	EXK1130 CAC1277	CAC1330 CAC1276	CAC1329 CDF-637	CCS1039	CCS1038	CBE-084 CBH1084	BMZ30P060FMC CDE1409 CSD1001	CWM1246 CWM1248	CWM1250 CWM1251	CWM1252	BMZ30P040FMC CDE1126 CDE1381	CDE1419	CKS-469	CWB1021 CDH1054		CDE1412	CDK-206		CDE1410	CKS-465 CKS-128	ONIM 820	
Š.	39.	40.	42. 43.	44.	45.	46.	47.	50.	522. 733.	22.		56.	52. 59. 60.	ġ	61.	64. 63. 64.	66. 67.	989.	70.	72.	73.	75.	. 86.6	ġ
Mark		*	•	*		*	*		*															
Description	Panel Assy (KE-3232/UC, ES) Panel Assy (KE-2222/UC, ES, 2515/US) Panel Assy (KE-3011/US)	Nut Plate Panel (KE-3232/UC, ES) Panel (KE-2222/UC, ES	2515/US) Panel (KE-3011/US) Spacer (KE-332/UC, ES,	Spacer (KE-3011/US) Nut (KE-3232/UC, ES, 2222/ 10 ES, 2615/115/	Nut (KE-3011/US) Cap (KE-3232/UC, ES, 2222/	UC, ES, 2515/US) Knob (KE-3232/UC, ES, 2222/ IC ES)	Knob (KE-2515/US) Knob (KE-3011/US) Knob (KE-3232/UC, ES, 2222/	UC, ES, 2515/US) Knob (KE-3011/US) Knob (KE-3232/UC, ES, 2222/	Knob (KE-3011/US) Insulator	Bush (KE-3011/US) Bush (KE-3011/US) P R Roard	Lamp, 14V 40mA	Bush (KE-3232/UC, ES, 2222/ UC, ES, 2515/US)		Plate LCD (KE-3011/US)	LCD (KE-3232/UC, ES, 2222/ UC, ES, 2515/US)	Holder Rubber Connector	Insulator Rubber Holder	Frame Unit Screw	Lens Button (KE-3011/US) Button	Plate Lens	Button (KE-3232/UC, ES, 2222/US, ES,2515/US) Button (KE-3011/US)	Button (KE-323Z/UC, ES, 222Z/UC, ES, 2515/US) Button (KE-3011/US)	Spring Door (KE-3232/UC, ES, 2222/ 11C ES)	Door (KE-2515/US) Door (KE-3011/US)
No. Part No.	୪୪ ୪ 	2. CBN-028 3. CNG-633 4. CNS1226 CNS1228	CNS1233 5. CND-646	CNC1528 6. CBN-028	CBN1001 7. CNK-292	8. CAA1054	CAA1058 CAA1083 9. CAA1011	CAA-603 10. CAA1055	CAA1056		14. CEL1004 or CEL1025	S :	CNV1371 16. CNN-137 17. CNY-215 18. PM720P050FMC			21. CNH-136 22. CNV1375 23. CNY-214		PT :	9. CNV1298 80. CAC1281 81. CAC1281	S		රී රී	36. VACANT 37. CBH1033 38. CAT1042	CAT1043 CAT1046
						*	*	*			* *	-	4 4 4-	*		MMM	14110	ICA(A)	**	.,	*	*	. , . , . ,	
Mark	√SH 6 HARTSID - Jibn A-sibil HOSTI - dan.	EDITUSANA ORIGINAS ARABAS			<u>du diferenten una veri e</u> vin	norzannárjakká n	landarin i ilmyskariskantsuntsuntsun	n Cory, medin Gily mankati hadili dan	i i esi nelabasanon espeki	and the second s	(	ر	and pass report in the hiddeline in the	og o spå spå spå state	entra para establis		nik nagaja miningi king japania	nh gatta sannat tha ghir na baile	anaighteanaile	Since magnification has subject to the		industrial and a second a second and a second a second and a second a second and a second and a second and a	incressioning all aid series XII and a	and an install desire of process growing of

## 21. CASSETTE MECHANISM ASSY EXPLODED VIEW

Mark	No.	Part No.	Description	Mark	9	Part No.	Description
*	1. 2,3. 6.	EXA1013 VACANT BMZ20P025FMC EBH1011	Motor Assy Screw Holder Spring	*	59. 60. 62. 63.	BMZ20P040FMC EPB1001 CBH-198 ENP1003	Screw Head Spring P. C. Board Arm
	7. 9. 9. 11.	CBF-166 EXA1012 BMZ23P030FMC BSZ23P040FMC	Washer Reel Unit Screw Screw Bracket		64. 65. 67.	EXA1004 EBH1004 EBH1003 YE20FUC	Head Base Unit Spring Spring Cushion Washer
	5 5 4 5 9	PMS26P025FUC EBH1019 EBA1002 ELA1019	Screw Cassette Holder Spring Screw Collar		69. 70. 72. 73.	EXA1002 EBF1004 ENV1009	Roller Unit Chassis Unit Washer Pulley Lever
	17. 18. 19. 20-22. 23.	ENV1022 ENV1021 YE12FUC VACANT YE15FUC	Arm Arm Washer Washer		74. 75. 76. 77.	EBH1025 EBL1001 ENV1010 HBA-147	Spring Spring Pulley Arm Screw
	25. 27. 28.	CBH-165 EBH1035 EBH1037 EBH1039	Washer Spring Arm Spring Spring		79. 80. 81. 83.	ELA1018 ELA1018 ENV1011	Gear Collar Arm Plug Gear
	29. 33. 33.	EBH1010 EBH1008	Arm Arm Spring Arm Spring	*	84. 85. 87.	EBH1024 EBH1018 EXA1003	Arm Spring Ratchet Spring Roller Unit
	35. 37. 38.	CBG1001 HBH-179 ENV1019 ENV1020	Arm Unit Washer Washer Flywheel (N)		89. 90. 92.	EBH1013 EXA1006 EXA1020	Arm Lever Spring Arm Unit Gear unit
*	39. 41. 43.	CNT-091 PMS20P040FMC ENV1016	Belt Roller Cassette Frame Unit Screw Tape Guide		94. 95. 97.	ELA1032 HBA-212 EBH1007 EBH1006 EBH1014	Collar Screw Spring Spring
	44. 46. 47.	EBH1020 EBH1040 EBH1041	Spring Lever Arm Spring Spring		99. 100. 101. 102.	CBF1001 ENV1018 ENV1017 EBH1022	Washer Arm Unit Gear Gear Spring
*	49. 50. 51. 53.	EBH1021 EBE1001 EBH1009 ENT1002	Spring Lever Washer Spring Belt		104. 105. 107.	EXA1005 EBA1006 BMZ20P070FUC	Arm Unit Plug Screw Screw Bracket Unit
	54. 55. 57.	ENV1012 CBH-135 ENV1014 EBA1007	Gear Washer Gear Cover Screw		109. 111. 112.	EBH1016 EBH1005	Spring Lever Unit Spring Spring Lever
					114. 115.		Lever Arm

2



## 22. ELECTRICAL PARTS LIST

Ex. 2 When there are 3 effective digits (such as in high precision metal film resis-

MOTHER UNIT

MO : T	MOTHER UNIT (KE-3232/UC, ES, 3011/US)						
MISCE	MISCELLANEOUS						
Mark	Symbol & Description	Part No.	Mark	Symbol	Symbol & Description	Part No.	
* *	IC51	LA1140B LA3430	* *	D207 D251, 2	D207 D251, 252, 503. 509 — 512	KV1235Z3 US1040 or	
*	IC201	LA1135				1S1555 or	
* *		M51522AL		Č		182473	
*	10404	AN6540	*	D201		RD4R7ESB1 or	
*	IC451	TA75558P				MTZ4R7JA	
*	· IC501	PD4073B	+k	D504		HZS5R6JB2 or	
*	10551	TA7280P				RD5R6JSB2	
* *	OE1, 52, 202 — 204	2SC2458	*	D507 (I	D507 (KE-3232/UC, 3011/US)	US1040M or	
*	U54, 515, 658	25A1048 or				1SS1 /6 or	
		2SA933S				1SS133	
* *		2SK435	*	D515	(KE-3232/ES)	US1040M or	
*	. 0251, 252	2SC2458 or				1SS176 or	
		2SC1 /40S				188133	
*	Q501, 502	2SA1150	*	D516		RD6R8ESB2	
*	0503	UN4216	*	D601		MTZ9R1JA or	
*	Q504 — 506, 509, 511, 512, 516	2SC2458				RD9R1ESB1	
*	O513	2SC3113	*	D607		ERA15-02Y	
*	O514	2SC2498 or	*	D657		MTZ9R1JC or	
		2902029				1000 ESBS	
*	0601, 602, 655, 656, 659	2SC2458 or		L	Ferri-Inductor	CTF-156	
+	0803	2SC1 /40S		L51	Ferri-Inductor	CTF-155	
		2SD667		1,601	Ferri-Inductor	CTE-002	
*	Q651, 652	2SD1468S		T51	Coil	CTC-198	
*	Q662 (KE-3232/UC, ES)	2SA1048		T201	ijo	CTB1011	
*	Q663, 664 (KE-3232/UC, ES)	2SD1468S		T202		CTB1012	
*	D151 – 153, 201, 202, 205, 206, 253, 502, 506, 508, 513, 514,	US1040M or 1SS176 or		T203, 204 T205	04 Coil Coil	CTE1013 CTE1011	
	651 – 656	1SS133		T206	Coil	CTE1012	

T207	TEAL No.   Coali	Mark	Symbol & Description	Description	Part No.	CAPACITORS	ITORS	
CF201	CF201   Semire Files   CF247   C55, 82   C55		T207	Coil	CTB1014	Mark	Symbol & Description	Part No.
CG1	CF201 Filter Control		CF51, 52	Ceramic Filter	CI F-182		C1, 51 – 54, 59, 67, 68, 153, 203	CGCYX223K25
OF 202 Caramine Resonator (CF 247) C56, 58, 151, 216  1 * VR151 Semi-fixed, 330x1 (8) CCP-244 C57, 201, 213  1 * VR151 Semi-fixed, 19x0 (8) CCP-246 C57, 201, 213  POWDER) CCS1038 C68  CCS1 Cosmic Personator, 57k1 CS1038 C68  CCS1 Caramic Personator, 57k1 CS1038 C68  CCS1 Caramic Personator, 57k1 CS1039 C66, 204  X151 Caramic Personator, 57k1 CS1039 C152  X501 X14, 40, Mart  CSS-046 C152  X501 X14, 40, Mart  CSS-046 C157  C157  X501 X14, 40, Mart  CSS-046 C157  C157  X501 X14, 40, Mart  CSS-046 C157	CT501 Trimmer, 20P CCP-244 CSP, 65, 65, 65, 151, 216  - * VR151 Smn*iked, 19504 (18) CCP-244 CSP, 201, 213  - * VR151 Smn*iked, 19504 (18) CCP-244 CSP, 201, 213  - * VR151 Smn*iked, 19504 (18) CCP-246 CSP, 202, 213  - * VR151 Smn*iked, 19504 (18) CCP-246 CSP, 202, 213  - * VR151 Smn*iked, 19504 (18) CCP-246 CSP, 202, 202, 202  - * CT501 Trimmer, 20P CCC, 070 CSP, 204  - * SSO1 Namical Number Reconator, 57kHz CSS1019  - * SSO1 Number Reconator, 57kHz CSS1019  - * SSO1 Number Smrth Reconator, 57kHz CSS1019		CF201	Filter	CTF-240		C55. 62	CCCSL330J50
** VRB1 Semi-lixed, 330k.1 (B) CCP-254 GS7, 201, 101, 20 GS7, 201, 201, 201, 201, 201, 201, 201, 201	+ VR51 Semi-fract, 330kπ1 (B) CCP-264 CSP, 201, 131, 130, 131, 131, 131, 131, 131, 1		CF202	Ceramic Resonator	CTF-247		000, 01	000000000000000000000000000000000000000
## VARIST Semi-Interd 18th (B) CCP-246 GS 7, 201, 213  ## VARIST Semi-Interd 18th (B) CCP-246 GS 7, 201, 213  ## VARIST Commit Reposition CCS 1038 GS 7, 201, 213  ## CCC CG 70 CCC 700 GS 7, 204  ## SEO1 X Yai, 4 SMM+ Reposition 57kH CSS 1019  ## SEO1 WRICH (B/L) (M S ELECTOR) HSM-156 GT 155  ##	** VP1515 Semi-lived, 16x0 (8) CcP-246  CG1	*	VB51	Semi-fixed 330kg (B)	CCP-254		(20, 63, 131, 216	CEAR4/MDULS2
## VPHS1 Semi-fixed, 19k.0 (EP-246 CG8, 186, 616  ## VPHS1/SSF   Volume/Switch   CCS1038   CG9    ## CTS1   Cceronic Resolution   CCS-006   CG5    ## CTS1   Cceronic Resolution   CCS-006   CG5    ## S501 Switch (9k.10k SELECTOR)   HSH-156   C152    ## S501 Switch (9k.10k SELECTOR)   HSH-156   C155    ## S501 Switch (9k.10k SELECTOR)   HSH-156   C15	## VP161 Swm1-fixed, 19k.0 (B) CCP-246 CG8, 156, 616  ## VP481/Sas1 Volume/Switch CCS1038 CG9  ## CCF CT CG1  ## CCF CT CG1  ## CCF CT CG2  ## CCF CT CG2  ## CCF CT CG3  ## S601 Switch (SW CT CG3			(a) and (b)	107-100		C57, 201, 213	CGCYX103K25
** YM4915481 Volumed, 18A0 18) COP-246  ** YM4915481 Volumed, 18A0 18) COP-246  CG1	** VM51 Sent-inted, 1840 (8) COP-246  ** VM51 Sent-inted, 1840 (8) COP-246  CCG1 (TREBLE, BASS FADER)  CCG 005  X151 Ceramic Reponsitor, 57kH CSS1019  X151 Ceramic Reponsitor, 57kH CSS1019  X151 Ceramic Reponsitor, 57kH CSS1019  CCG 005  X151 Ceramic Reponsitor, 57kH CSS1019  CCG 005  X151 Ceramic Reponsitor, 57kH CSS1019  CCG 005  X151 Ceramic Reponsitor, 57kH CSS1019  CCS 005  CCS 006			,			C58, 156, 616	CEA010M50LS2
Trefell   Volume/Switch   CCS1038   C60	Tried   Volume Switch   CCS1038   C66	* *		Semi-fixed, 15kΩ (B)	CCP-246			
COLI	CCC	* *	VR45	51 Volume/Switch	CCS1038			
CG1  CG21  CG3  CG3  CG3  CG4  CG5  CG5  CG5  CG5  CG5  CG5  CG5	CCC			TREBLE BACK EANER	/6		9	CAPTBIOLNSUL
CG1 CT501 CT501 CT502 CT503 CT503 CT504 CT504 CT507 CT	CG1 Trimmer, 20P CCC-006 C152  X151 Ceramic Resonator, 57kHz GSS1019  X501 Switch (SIVE) CCC-007  X501 Switch (SIVE) CCS-006 C152  X501 Switch (SIVE) CSS1019  X501 Switch (SIVE) CSS-046 C155  X502 Size Size Size Size Size Size Size Size			100000000000000000000000000000000000000			C61	CGCYX223K25
CCC	CCC			C C C C C C C C C C C C C C C C C C C			C64	CKCYB561K50
CT501 CCC-0706 CT501 X151 Ceramic Resonator, 57kHz CSS1019 X501 X151 Ceramic Resonator, 57kHz CSS1019 CCC-070  X501 X151 Ceramic Resonator, 57kHz CSS1019 CSS-046 C155 C155 C155 C155 C157 SVADOR SEEECTOR) HSH-1566 C159 C159 C159 C159 C159 C159 C159 C159	Total Trimmer, 20P CCCA,006 CT501 Trimmer, 20P CCCA,007 Trimmer, 20P CCCA Tri						700	C 197014161 2
X501         Trimmer, 20P         CGG-070         C152           X501         X801         CGG-070         C154           X501         Switch (9k/10k SELECTOR)         HSH-156         C157           * \$501/NB01 Switch (9k/10k SELECTOR)         HSH-156         C157           * \$801/NB01 Switch/Nbulme         CSD 001         C202             CALANCE          CSD 1001         CC02             Symbol & Description         Part No.         C202             Sil	X501 Varianter, 20P         CCG-070         C152           X501 Switch (9k/10k SELECTOR)         HSH-156         C154           X501 Switch (9k/10k SELECTOR)         HSH-156         C155           4 S601/VR601 Switch (10k SELECTOR)         HSH-156         C155           ALANCE)         CSD 1001         C200           GRAD, Medical/Volume         CSD 1001         C200           Symbol & Description         Part No.         C200           R51 - B6, 60 - 68, 151 - 157, at 1 26, 256 - 286.         R51 - 157, at 1 27, 214, 215, 214, 215, 214, 215, 214, 215, 214, 215, 214, 216, 216, 216, 216, 216, 216, 216, 216		CG1		900-X33		t02, 204	CEA4/OWI I OLZ
X150   X18, 150 Caranic Resonancy, 57k4 (251019)  X150   X18, 14.5 Mht   CSS 0.46   C155    X500   X18, 14.5 Mht   CSS 0.46   C155    X501   X18, 14.5 Mht   CSS 0.46   C155    X502   X18, 121, 121, 121, 121, 121, 121, 121, 1	X150   Virtual Antimetr, 2007   Virtual Antim		LOH TO	90C	000000		C152	CGCYX332K25
X501   Creaming Resonator, 57k1 CSS1019	X501   Commitmer Resonance, 57kHz GSS1019   Class			1	0/0-500			
X501 Swirtel X5MHz  X502 Swirtel X5MHz  X502 Swirtel X5MHz  X502 Swirtel X5MHz  X503 Swirtel X5MHz  X503 Swirtel X5MHz  X503 Swirtel X5MHz  X504 Swirtel X5MHz  X503 Swirtel X5MHz  X504 Swirtel X5MHz  X504 Swirtel X5MHz  X506 Swirtel X5MHz  X507 Swirtel X5MHz  X508 Swirtel X5MHz  X508 Swirtel X5MHz  X509	X501 Swirted Natural & SMHz         CSS-046         C155           X501 Swirted Natural X-BMHz         CSS-046         C157           X501 Swirted Natural X-BMHz         CSD1001         C202           B ALANCE I BALD, MRMO/TONE, BALANCE I SALANCE I S		X151	Ceramic Resonator, 57kH	z CSS1019		7157	CK DBC153K25
* \$501 Switch (9k/10k SELECTOR) HSH-156 C1157 C	* \$501 Switch (9k/10k SELECTOR) HSH-156 C157  (KE-3232(ES) (KE-3232(ES) C157  (RE-3232(UC, ES) C157  SYMBOIR Description State C202  RSI - 286, 268 - 668 Since C32 C32  SSTORS (KE-3011/US) C203  RSI - 286, 285, 686 Since C32 C32  SSTORS (KE-3011/US) C32  SSTORS (KE-3011/		X501	X'tal, 4.5MHz	CSS-046			
* \$801/\text{Media Bando, Method Towner} (RE-3232/EB)	Seo1/Ne601 Switch/Nobel   RAND, MEMO/TONE, BALANCE  CSD1001		\$501	ch (9k/10k SFI ECTOB)	HSH.156		CIDD	CEASRSMOULS
X- SB01/VHG01 Switch/Volume   CSD1001	Septiment   Cite   Cite   Cite   Cite		3	(30) 10x 0t tt (31)	00		C157	CSZAR22M35
The control of the	★ S601/NB601 Switch/Nolume         CSD1001         C202           BALANCE         CSD1001         C202           BALANCE         C203         C203           SYMBol & Description         Part No.         C206           R51 – BS, 60 – 69, 151 – 157, 214, 215, 212, 212, 212, 212, 212, 212, 212						C159, 160	CKDYBC393K25
STORS   STORY   STO	STORSIKE-3222/UC, ES    SALANCE    SALANCE    SALANCE    SALANCE    SALANCE    SALANCE    SALANCE    SALANCE    Symbol & Description   Part No.   C200, 614     Sol = 62, 510 - 526, 526 - 526, 526 - 526, 526     Sol = 61, 562, 563 - 66, 566 - 66, 566 - 66, 566     Sol = 61, 562, 563 - 66, 566 - 66, 564 - 66, 566     Store = 51, 561, 562, 563 - 66, 566 - 66, 564 - 57, 561, 566     Store = 51, 561, 562, 563 - 66, 566 - 564, 564, 564     Store = 51, 561, 562, 563 - 566, 566 - 566			(KE-3232/ES)			C161	CEA220M16L2
SYMBOL   BALANCE    C202   C	SYMBOL & Description   Part No.   C202   C	* *		01 Switch/Volume	CSD1001			
SYMBOL & Description   Part No.   C205, 208, 211, 212, 214, 216, 213, 223, 225	SYMBOL & Description			(BAND, MEMO/TONE,			2023	CGCVVOOR
Symbol & Description	Symbol & Description   Part No.   C206 614     Symbol & Description   Part No.   C206 614     Symbol & Description   Part No.   C207 210     Si 519, 522, 285 – 286, 518 – 561, 568 – 663     Story & Story			BALANCE)			C205 200 211 212 214 215	CGCCXXXXX
Symbol & Description	Symbol & Description						240, 200, 211, 212, 214, 210,	277777
Symbol & Description   Part No.   C207, 210	Symbol & Description   Part No.   C205, 614						213, 223, 223	
Symbol & Description  F51 − 86, 60 − 69, 151 − 157,  201 − 218, 251, 252, 256 − 266, 518, 519, 522, 254 − 537, 551 − 566, 568 − 516, 518, 519, 522, 524 − 537, 551 − 566, 568 − 561, 664, 566, 601 − 613, 652, 655, 688 − 663  F51 − 566, 568 − 561, 564, 565, F51 − 566, 568 − 561, 564, 565, F52 − 563, 565, 568 − 663  F52 − 563, 565, 568 − 663  F51 − 58, 60 − 69, 151 − 157, F51 − 58, 60 − 69, 151 − 157, F51 − 58, 60 − 69, 151 − 157, F51 − 462, 503  F51 − 58, 60 − 69, 151 − 157, F51 − 58, 60 − 69, 151 − 157, F51 − 58, 60 − 69, 151 − 157, F51 − 58, 60 − 69, 151 − 157, F51 − 58, 60 − 69, 151 − 157, F52 − 569, 569 − 516, F53 − 569 − 516, F54 − 569, 569 − 516, F55 − 569, 569 − 516, F	Symbol & Description  R61 – 58, 60 – 69, 151 – 157, 201 – 218, 251, 252, 255 – 226, 451 – 462, 501 – 506, 508 – 516, 518, 519, 522, 524 – 537, 51 – 566, 588 – 561, 566, 588 – 661, 566, 588 – 661, 666, 588 – 616, 566, 588 – 619, 662, 563  R99, 523, 597, 651, 656  R99, 523, 597, 651, 656  R91 – 613, 652, 565 – 566, R91 – 613, 652, 565 – 566, R51 – 613, 652, 565 – 266, R51 – 58, 60 – 68, 151 – 157, Symbol & Description  R61 – 68, 500 – 69, 151 – 157, S51 – 566, 601 – 613, 652, 656, S51 – 556, 601 – 613, 652, 655, S51 – 556, 601 – 613, 652, 655, S51 – 556, 601 – 613, 652, 655, S51 – 556, 601 – 613, 652, 656, S51 – 556, 601 – 613, 652, 656, S52 – 456 S53 – 456 S53 – 456 S54 – 457, S54 – 556, 601 – 613, 652, 656, S55 – 456 S55 – 45	RESIS	TORS(KE-3;	232/UC, ES)			C206, 614	CEA010M50LS2
Symbol & Description  R51 - 88, 60 - 69, 151 - 157,  A01 - 218, 258 - 266, 518, 519, 522, 524 - 537, 551 - 556, 558 - 561, 564, 565, 601 - 613, 652, 651, 666  Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 86, 501 - 506, 508 - 516, 518, 519, 522, 524 - 526, 521 - 526, 527, 258  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R51 - 88, 60 - 69, 151 - 157, Symbol & Description  R52 - 256 - 256 Symbol & Description  C253, 254 Symbol & Description  C254, 256 Symbol & Symbol	Symbol & Description  R51 - 88, 60 - 69, 151 - 157,  A01/4PS□□□JL  C018  A51 - 482, 501 - 506, 508 - 516, 518, 519, 522, 524 - 537, 551 - 566, 588 - 663  R601 - 613, 662, 665, 688 - 663  R95, 533, 567, 681, 686  R61 - 88, 60 - 69, 151 - 157, SYmbol & Description  R51 - 88, 60 - 69, 151 - 157, FR1 - 88, 60 - 69, 151 - 157, FR1 - 88, 60 - 69, 151 - 157, FR1 - 88, 60 - 69, 151 - 157, FR2 - 58, 60 - 69, 151 - 157, FR3 - 451 - 462, 500 - 506, FR5 - 566, 601 - 613, 682, 685, FR5 - 566, 601 - 613, 682, 685, FR5 - 666, 601 - 613, 682, 685, FR5 - 666, 601 - 613, 682, 685, FR5 - 667, 687, 681, 686 FR5 - 668, 601 - 613, 682, 685, FR5 - 688, 601 - 613, 682, FR5 - 688, 602, FR5 - 6						C207, 210	CCDSH070C50L
R51 - 58, 60 - 69, 151 - 157,   R01/4PS□□JL   C209     201 - 218, 251, 252, 255 - 266,   S14 - 462, 501 - 506, 508 - 516,   S14 - 462, 501 - 506, 508 - 516,   S14 - 462, 501 - 506, 508 - 516,   S14 - 462, 503 - 561, 564, 565,   S14 - 507,   S15 - 507,   S16 - 506,   S16 - 507,   S16 - 50	R51 - S8, 60 - 69, 151 - 157,   R01/4P8□□JL   C209     201 - 218, 251, 252, 255 - 266,   R1 - 462, 501 - 506, 508 - 516,     518, 519, 522, 524 - 537,   C222     551 - 556, 558 - 561, 564, 566,   R51 P□□JL   C222     R52, 563   R01/4PM□□JJ   C222     R52, 563   R51, 656   R51 P□□JL   C226     R51 - 58, 60 - 69, 151 - 157,   R01/4P8□□JL   C256, 256     Symbol & Description   Part No.   C256, 256     Symbol & Description   C256, 256     Symbol & Description   Part No.   C256, 256     Symbol & Description   C256, 256     Sym	Mark	Symbol & D	Description	Part No.			
R51 - 58, 60 - 69, 151 - 157,   RD1/4PS□□JL   C2102	R51 - 88, 60 - 69, 151 - 157,   R01/4P8□□JL   C218     451 - 482, 501 - 506, 608 - 516,     518, 519, 522, 524 - 537,     551 - 566, 586 - 561, 564, 566,     518, 519, 522, 524 - 537,     511 - 482, 501, 566, 586 - 663     801 - 613, 652, 655, 686 - 663     802 - 63, 651, 666     803 - 63, 651, 666     804 - 64, 644     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 656     805 - 63, 651, 655     805 - 63, 651, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 655     805 - 63, 651, 652, 652, 652, 652, 652, 652, 652, 652					1	0000	LOBOHO10101
201 – 218, 251, 252, 255 – 256, 451 – 442, 501 – 506, 508 – 516, 518, 519, 522, 524 – 537, 518 – 565, 588 – 663  RS1P□□□JL  SYMBol & Description  RF1 – 86, 60 – 69, 151 – 157, 518, 519, 522, 524 – 537, 551 – 566, 601 – 613, 652, 658 – 663  RF9, 507, 523, 557, 651, 656  RS1P□□□JL  C223  RS1P□□JL  C224  RS1P□□JL  C226  C227  C227  C227  C227  C227  C228  C228  C228  C228  C228  C229  C229  C221  C229  C221  C229  C221  C220  C221  C221  C222  C221  C222  C223  C224  C226  C226  C226  C226  C227  C227  C228  C227  C227  C228  C227  C228  C227  C227  C228  C227  C227  C227  C228  C227  C227  C227  C228  C227  C227  C227  C227  C228  C227  C24  C227  C227  C24  C257  C260  C260  C260  C260  C27  C27  C260  C27  C27  C260  C27  C260  C27  C27  C260  C27  C260  C260  C27  C260  C27  C260  C27  C260  C27  C260  C260  C260  C260  C260  C27  C260  C260  C260  C260  C27  C260  C260  C260  C260  C260  C260  C260  C27  C260  C260  C27	201 – 218, 251, 252, 255 – 266, 451 – 442, 501 – 506, 508 – 516, 518, 519, 522, 524 – 537, 601 – 613, 652, 655, 658 – 663  R519, 623, 557, 651, 656  R519 – 613, 652, 655, 658 – 663  R51P□□□□□  Symbol & Description  R51 – 86, 603, 151 – 157, Symbol & Description  R51 – 86, 604, 151 – 157, R51P□□□□□  C256, 256 C251, 252, 255 – 266, A51 – 452, 501 – 506, 508 – 516, 518, 519, 522, 254 – 537, 551 – 556, 601 – 613, 652, 655, 658 – 663  R59, 601 – 613, 652, 655, 656, 658 – 663  R51 – 556, 601 – 613, 652, 655, 651 – 556, 601 – 613, 652, 655, 652 – 665, 653 – 665, 653 – 665, 654 – 665, 655 – 665, 655 – 665, 656 – 665, 656 – 665, 657 – 665, 658 – 665, 658 – 665, 658 – 665, 659 – 665, 659 – 665, 659 – 665, 659 – 665, 659 – 665, 659 – 665, 659 – 665, 659 – 665, 659 – 665, 650 – 665		R51 - 58.	60 - 69, $151 - 157$ .	RD1/4PSDDDJL		C209	CCFCFOFO TO SOL
### 10	### 1919, 527, 529 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 516, 568 - 518, 519, 522, 524 - 537, 562, 568 - 663		201	254 252 255 256			C217	CEA3H3M50L2
451 - 462, 501 - 506, 508 - 516, 565, 565 -	481 - 482, 501 - 506, 508 - 516, 518, 519, 522, 524 - 537, 551 - 566, 558 - 663  RS1P□□□JL  C222  RS1P□□□JL  C224  RS1P□□□JL  C226  RS1P□□□JL  C226  RS1P□□□JL  C227  RS1P□□□JL  C228  RS1 P□□□JL  C25, 256  C25, 266  C26, 461  C263  C263  C263  C263  C260  C260  C260  C260  C260  C260  C260  C27  C27  C27  C27  C28  C260  C27  C27  C28  C28  C28  C28  C28  C260  C260  C260  C260  C260  C27  C27  C27  C27  C28  C260  C27  C27  C27  C27  C28  C260  C27  C260  C260  C260  C260  C260  C260  C260  C260  C260  C27  C260  C27  C260  C260  C27  C260  C260  C260  C27  C260  C260  C260  C27  C260  C260  C27  C260  C260  C260  C27  C2		017 - 107	, 231, 232, 233 — 266,			C218	CEA4R7M35L2
518, 519, 522, 524 – 537, 551 – 556, 558 – 561, 564, 565,  601 – 613, 652, 654, 565,  601 – 613, 652, 655, 658 – 663  RS1P□□□JL  C228  R51P□□□JL  C228  R51P□□□JL  C228  STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  C25, 254  C25, 254  C25, 254  C25, 254  C25, 256  C25, 266  C26, 260  C26, 2	518, 519, 522, 524 – 537, 551 – 556, 558 – 561, 564, 565,  601 – 613, 652, 655, 658 – 663 RD1/4PM□□JL C228 R51 P□□JL C228 R51 P□□JL C228 SYmbol & Description R51 – 58, 60 – 69, 151 – 157, 551 – 556, 601 – 613, 652, 655, 551 – 556, 601 – 613, 652, 655, 551 – 556, 601 – 613, 652, 655, 658 – 663 R51 – 557, 651, 656 RD1/4PM□□JL C253, 258 C254, 258 C254, 268 C254, 268 C255, 268 C257, 288 C257, 288 C258, 260 C268, 260 C268, 260 C278, 260		451 - 462	$\frac{1}{2}$ , 501 $-$ 506, 508 $-$ 516,			C220	CCDCH150,1501
601 − 613, 652, 658 − 663 R51 − 565, 568 − 663 R52 + 565, 658 − 663 R52 + 565, 658 − 663 R51 − 613, 652, 655, 658 − 663 R52 + 563 SYmbol & Description Symb	601 – 613, 652, 658 – 663 R51 – 614, 656, 658 – 663 R51 – 615, 657, 651, 656 R51 – 615, 656, 658 – 663 STORS (KE-3011/US) STOR		518, 519, 8	522, 524 — 537,			0000	COB > E 1 1 C 2 A
C222 R59, 523, 567, 651, 656 R514P□□JL C226 R517, 651, 656 R517, 651, 656 Symbol & Description Symbol & Description C251, 252 Symbol & Description Symbol & Description C253, 254 C253, 254 C253, 255 C254, 256 C255, 257 C255, 256 C256, 256 C256, 256 C256, 256 C256, 2	601 – 613, 652, 655, 658 – 663 R51 P□□JJL C226 R51 P□□JJL C228 STORS (KE-3011/US)  C25, 254 C25, 254 C25, 254 C25, 256 C25, 25		551 - 556	. 558 — 561, 564, 565.			C221	CULASIIGZA
### RS1 PG 1	# ## ## ## ## ## ## ## ## ## ## ## ## #							
STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  Symbol & Description  Symbol & Description  Fart No.  C255, 256  Symbol & Description  Part No.  C257, 258  R51 - 56, 60 - 69, 151 - 157, RD1/4PS□□JL  C259, 260  C257, 258  R51 - 462, 501 - 506, 508 - 516, 518, 550  551 - 556, 601 - 613, 652, 655, 655  G451 - 462, 601 - 613, 652, 655, 655  F51 - 556, 601 - 613, 652, 655, 655  G451 - 462  C451 - 462  C451 - 462  C451 - 463  C452 - 463  C456 - C451  C451 - 464  C451 - 464  C451 - 465	STORS (KE-3011/US)  STORS (KE-3011/US)  Symbol & Description  Fig. 1. 56, 60 – 69, 151 – 157, 514 – 465, 501 – 566, 508 – 516, 515 – 56, 601 – 613, 652, 654, 551 – 56, 601 – 613, 652, 655, 551 – 56, 601 – 613, 652, 655, 551 – 56, 601 – 613, 652, 655, 551 – 556, 601 – 613, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 557, 651, 656, 552 – 558 – 558, 552 – 558 – 558 – 558 – 558 – 558 – 558 – 558 – 558 – 558 – 558 – 558 – 558 – 558		601 613	GE7 GE6 GE9 G63			C222	CCCRH180J50
STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  Symbol & Description  Fart No.  C255, 254  C257, 258  R51 − 58, 60 − 69, 151 − 157, FD1/4PS□□JL  C259, 260  C257, 258  F51 − 56, 601 − 613, 652, 256 − 266  F51 − 56, 601 − 613, 652, 655, F51 − 56, 601 − 613, 652, 655, F51 − 556, 601 − 613, 656  F52, 527, 557, 651, 656  F53 − 465  C451, 452  C256, 256  C257, 258  C259, 260  C263, 260  C257, 268  C257, 268  C457, 488  C458, 460  C459, 460  C450, 463  C466  C466  C501  C501  C503  C504, 653  C504, 653  C506, 507  C508,	STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  Symbol & Description  Fart No.  C255, 254  C255, 256  C257, 258  F51 - 55, 601 - 505, 508 - 516, 518, 519, 522, 524 - 537, 551 - 556, 601 - 613, 652, 655, 658 - 663  F51 - 556, 601 - 613, 656, 656, F53 - 557, 651, 656  F51 - 556, 601 - 613, 656  F51 - 556, 601 - 613, 656  F51 - 556, 601 - 613, 656  F52 - 557, 651, 656  F53 - 656  F53 - 656  F54 - 657  F55 - 656  F55 -		200	7, CCZ, CCC, CCC	000000000000000000000000000000000000000		C224	CKPYB102K50L
STORS (KE-3011/US)  STORS (KE-3011/US)  STORS (KE-3011/US)  Symbol & Description  Symbol & Description  Symbol & Description  B51 − 58, 60 − 69, 151 − 157,  B71 − 218, 251, 255 − 266,  451 − 462, 501 − 506, 508 − 516,  518, 519, 522, 524 − 537,  551 − 556, 601 − 613, 652, 655,  658 − 663  B73 − 218, 519, 523, 557, 651, 656  B74 − 613, 652, 651, 656  B75 − 613, 652, 651, 656  B77 − 613, 652, 651, 656  B77 − 625  B78 − 625  B	STORS (KE-3011/US)  STORS (KE-3011/US)  Symbol & Description  Symbol & Description  Symbol & Description  Part No.  C253, 254  C255, 256  C257, 258  R51 - 58, 60 - 69, 151 - 157, RD1/4PS□□JL  C218, 252, 254 - 266, 451 - 462, 501 - 506, 502  E51 - 556, 601 - 613, 652, 655, C457, 458  658 - 663  R59, 507, 523, 557, 651, 656  RD1/4PM□□J  C465  C501  C503  C504, 653  C504, 653  C508  C508  C509  C509  C509  C509  C509  C509		109, 525, 5	327, 631, 636			C226	CEA101M10L2
STORS (KE-3011/US)  Symbol & Description  Symbol & Description  Fat No.  Symbol & Description  Fat No.  Symbol & Description  Fig. 528, 60 - 69, 151 - 157,  Fig. 521, 252, 255 - 266,  451 - 462, 501 - 506, 508 - 516,  518, 519, 522, 524 - 537,  551 - 556, 601 - 613, 652, 655,  658 - 663  Fig. 523, 557, 651, 656  Fig. 523, 557, 651, 656  Fig. 523, 557, 651, 656  Fig. 524, 524, 524, 523, 557, 651, 656  Fig. 526, 627, 523, 557, 651, 656  Fig. 526, 627, 523, 557, 651, 656  Fig. 526, 627, 626, 625  Fig. 526, 626, 626  Fig. 526, 627, 626, 626  Fig. 527, 627, 626, 627  Fig. 527, 627, 627, 626  Fig. 527, 627, 627, 627, 627, 627, 627  Fig. 527, 627, 627, 627, 627  Fig. 527, 627  Fig. 527, 627  Fig. 527  Fig. 5	STORS (KE-3011/US)  Symbol & Description  Symbol & Description  Bart No.  Symbol & Description  Bart No.  C253, 254  C255, 256  C257, 258  R51 - 58, 60 - 69, 151 - 157,  A51 - 462, 501 - 506, 508 - 516,  518, 519, 522, 524 - 537,  551 - 556, 601 - 613, 652, 656,  658 - 663  R59, 507, 523, 557, 651, 656  RD1/4PM□□□J  C462, 463  C465  C501  C503  C504, 653  C508		R562, 563		RS1PDDDJL		22.38	CCDSI 220,I501
STORS (KE-3011/US)  Symbol & Description  Symbol & Description  Part No.  Symbol & Description  Fig. 58, 60 – 69, 151 – 157,  101 – 18, 251, 252, 255 – 266,  451 – 462, 501 – 506, 508 – 516,  518, 519, 522, 524 – 537,  551 – 556, 601 – 613, 652, 655,  658 – 663  R59, 507, 523, 557, 651, 656  RD1/4PM□□□J  C462, 463  C465  C501  C503  C504, 653  C504, 653  C508  C509	SYMBOL & Description  Symbol & Description  FET - 58, 60 - 69, 151 - 157, 201 - 218, 252, 255 - 266, 451 - 462, 501 - 505, 508 - 516, 518 - 556, 601 - 613, 652, 655, 651 - 556, 601 - 613, 652, 655, 658 - 663  H59, 507, 523, 557, 651, 656  H59, 507, 523, 557, 651, 656  C465  C503  C503  C504, 653  C504, 653  C508						C2E1 2E2	CKPVRA71KEO!
Symbol & Description  Symbol & Description  Symbol & Description  B51 - 58, 60 - 69, 151 - 157, 201 - 218, 251, 252, 255 - 266, 451 - 462, 501 - 506, 508 - 516, 518, 519, 522, 524 - 537, 551 - 556, 601 - 613, 652, 655, 658 - 663  R59, 507, 523, 557, 651, 656  R59, 507, 523, 557, 651, 656  R658 - 663  R659, 507, 523, 557, 651, 656  R650 - 661, 464  R650 - 662	Symbol & Description  Symbol & Description  B\$10.255, 256  R51 - 58, 60 - 69, 151 - 157,  R51 - 58, 60 - 69, 151 - 157,  R51 - 58, 60 - 69, 151 - 157,  R51 - 58, 60 - 69, 151 - 157,  R51 - 58, 60 - 69, 151 - 157,  R51 - 58, 501 - 508, 508 - 516,  S51 - 56, 601 - 613, 652, 655,  S51 - 56, 601 - 613, 652, 655,  S51 - 56, 601 - 613, 652, 655,  S52 - 557, 258 - 260,  C451, 452  C451, 454  C452, 463  C465  C466  C501  C503  C504  C507  C508	.01010	C 3// 30/01	(317/10)			(201, 202	100 L
Symbol & Description         Part No.         C255, 256           R51 - 58, 60 - 69, 151 - 157,         RD1/4PS□□JL         C257, 258           201 - 218, 251, 252, 255 - 266,         451 - 462, 508 - 516,         C263           451 - 462, 501 - 506, 508 - 516,         C451, 452         C451, 452           551 - 556, 601 - 613, 652, 655,         C451, 458         C453 - 456           658 - 663         C451, 656         C451, 464           R59, 507, 523, 557, 651, 656         RD1/4PM□□J         C462, 463           C465         C501         C504           C501         C504, 653         C504, 653           C508         C504, 653         C504, 653           C508         C551, 552         C551, 653, 554	Symbol & Description         Part No.         C255, 256           R51 - 58, 60 - 69, 151 - 157,         RD1/4PS□□JL         C255, 256           201 - 218, 251, 252, 255 - 266,         451 - 462, 501 - 506, 508 - 516,         C263           451 - 462, 501 - 506, 508 - 516,         518, 519, 522, 524 - 537,         C451, 452           551 - 556, 601 - 613, 652, 655,         C451, 452         C451, 458           658 - 663         R59, 507, 523, 557, 651, 656         RD1/4PM□□□J         C461, 464           R59, 507, 523, 557, 651, 656         RD1/4PM□□□J         C466         C501           C501         C503         C504, 653         C504, 653           C504, 653         C506, 507         C508         C508           C503, 557, 651, 656         C507         C508         C508           C503         C503, 557, 651, 655         C503, 557         C503         C503	KESIS	IORS (KE-3	(\$0/110				
Symbol & Description    Part No.   C255, 256     R51 - 58, 60 - 69, 151 - 157,   RD1/4PS□□JL   C257, 258     R51 - 58, 60 - 69, 151 - 157,   RD1/4PS□□JL   C263     201 - 218, 251, 252, 256 - 266,     451 - 462, 501 - 506, 508 - 516,     518, 519, 522, 524 - 537,     551 - 556, 601 - 613, 652, 655,     658 - 663   C457, 458     658 - 663   C465     R59, 507, 523, 557, 651, 656   RD1/4PM□□J   C461, 464     C465   C501     C501   C503     C504   653     C506   C507     C508   C551, 552     C509   C551, 552	Symbol & Description     Part No.     C255, 256       R51 - 58, 60 - 69, 151 - 157,     RD1/4PS□□JL     C257, 258       201 - 218, 251, 255, 256 - 266,     C253, 260     C253, 260       201 - 218, 251, 252, 255 - 266,     C253     C253       451 - 462, 501 - 506, 508 - 516,     C451, 452     C451, 452       551 - 556, 601 - 613, 652, 655,     C451, 452     C457, 458       658 - 663     C450, 460     C461, 464       R59, 507, 523, 557, 651, 656     RD1/4PM□□□J     C462, 463       C501     C501     C501       C502     C504, 653       C504, 653     C504, 653       C508     C551, 552       C504, 653     C551, 552       C504, 653     C551, 552       C551, 552     C551, 552						C253, 254	CEANL4R7M35L
Symbol & Description Fait No.  Symbol & Description Fait No.  R51 - 58, 60 - 69, 151 - 157, RD1/4PS□□JL C259, 260  201 - 218, 251, 252, 255 - 266, 451 - 462, 501 - 506, 508 - 516, 518, 519, 522, 524 - 537, 551 - 556, 601 - 613, 652, 655, 658 - 663  R59, 507, 523, 557, 651, 656 RD1/4PM□□□J C46, 464  C465 C501 C501 C503 C504 C504 C507 C508 C507 C508 C501 C507 C508 C501 C503 C504 C507 C508 C501 C503 C504 C507 C508 C501 C503 C503 C504 C507 C508 C507 C508	Symbol & Description  R51 - 58, 60 - 69, 151 - 157, RD1/4PS□□JL  201 - 218, 251, 252, 255 - 266, 451 - 462, 501 - 506, 508 - 516, 518, 519, 522, 524 - 537, 551 - 556, 601 - 613, 652, 655, 658 - 663  R59, 507, 523, 557, 651, 656  R501  C501  C501  C501  C503  C504, 653  C506, 507  C506, 507  C505, 523, 557  C506, 507  C506, 507  C507  C508  C508  C553, 554	:		:			C255, 256	CEA470M16LS
58, 60 - 69, 151 - 157, RD1/4PS□□JL C259, 260  218, 251, 252, 255 - 266, 462, 501 - 506, 508 - 516, 119, 522, 524 - 537, 556, 601 - 613, 652, 655, 663  07, 523, 557, 651, 656 RD1/4PM□□□J C462, 463  C465  C465  C465  C465  C465  C465  C465  C465  C465  C501  C504, 653  C504, 653  C504, 653  C508  C5504, 653	58, 60 - 69, 151 - 157, RD1/4PS□□JL C259, 260  218, 251, 252, 255 - 266, 462, 501 - 506, 508 - 516, 119, 522, 524 - 537, 556, 601 - 613, 652, 655, 663  07, 523, 557, 651, 656 RD1/4PM□□□J C461, 464  C462, 463  C465  C465  C466  C501  C504, 653  C504, 653  C504, 653  C504, 653  C504, 653  C508  C509	Mark	Symbol & L	Description	Fart No.		C257, 258	CGCYX103K25
58, 60 — 69, 151 — 157, RD1/4PS□□JL C259, 260  218, 251, 252, 255 — 266, 462, 501 — 506, 508 — 516, 119, 522, 524 — 537, 556, 601 — 613, 652, 655, 663  07, 523, 557, 651, 656 RD1/4PM□□□J C462, 463  C465  C501  C504, 653  C504, 653  C506, 507  C508  C557  C558  C558  C558  C558  C559  C559  C559  C559  C559	58, 60 — 69, 151 — 157, RD1/4PS□□JL C259, 200  1218, 251, 252, 255 — 266, 462, 501 — 506, 508 — 516, 19, 522, 524 — 537, 556, 601 — 613, 652, 655, 663  07, 523, 557, 651, 656 RD1/4PM□□□J C461, 464  C465  C466  C501  C501  C504, 653  C504, 653  C504, 653  C506, 507  C508  C509  C501  C501  C508  C501  C508  C509  C509  C509					1	0507, 500	100000000000000000000000000000000000000
C263  218, 251, 252, 255 – 266,  462, 501 – 506, 508 – 516,  462, 501 – 506, 508 – 516,  462, 502 – 537,  556, 601 – 613, 652, 655,  663  07, 523, 557, 651, 656  RD1/4PM□□□J  C462, 463  C465  C501  C504, 653  C508  C508  C508  C508  C553  C508  C553  C508  C553  C553	C263  218, 251, 252, 255 – 266,  462, 501 – 506, 508 – 516,  462, 501 – 506, 508 – 516,  462, 501 – 506, 508 – 516,  519, 522, 524 – 537,  556, 601 – 613, 652, 655,  663  07, 523, 557, 651, 656  RD1/4PM□□□J  C465  C465  C465  C465  C501  C504, 653  C504, 653  C506, 507  C508  C551, 552  C551, 552		R51 - 58, (	60 - 69, $151 - 157$ ,	RD1/4PSCCCJL		C259, 260	CGCY X223K25
462, 501 — 506, 508 — 516,  462, 501 — 506, 508 — 516,  556, 601 — 613, 652, 655,  556, 601 — 613, 652, 656,  663  07, 523, 557, 651, 656  RD1/4PM□□□J  C462, 463  C465  C465  C501  C504, 653  C504, 653  C508  C508  C551, 552  C553  C553  C553  C553	462, 501 — 506, 508 — 516,  119, 522, 524 — 537,  156, 601 — 613, 652, 655,  1663  17, 523, 557, 651, 656  18		201 - 218	. 251, 252, 255 – 266.			C263	CEA221M10L2
(2461, 452 (252, 524 – 537, (556, 601 – 613, 652, 655, (563) (663) (7, 523, 557, 651, 656 RD1/4PM□□□J C462, 463 (2465) (2465) (2504, 653) (5504, 653)	(2451, 452 (2451, 452 (2452, 624 – 537, 458 (2450, 460 (2461, 464 (2461, 464 (2462, 463 (2465 (2466 (2501 (2504, 653 (2504, 65		451 - 462	501 - 506, 508 - 516.				
663 667, 657, 657, 656, 656, 675, 657, 657, 658 675, 677, 678 675, 677, 678 675, 677, 678 675, 677, 678 675, 677, 678 675, 677, 678 675, 677	663 663 07, 523, 557, 651, 656 RD1/4PM□□□J C453, 458 C459, 460 C461, 464 C465 C465 C465 C465 C465 C465 C465 C		E 10 E 10 E	500 E01 E01			C451, 452	CEA100M25LS
. 550, 651, 656  BD1/4PM□□□J  C462, 463  C465  C466  C501  C503  C504, 653  C508  C508  C508  C553  C508	. 555, 651, 656 RD1/4PM□□□J C457, 458  C463  C465, 466  C465, 464  C465, 465  C465  C501  C501  C503  C504, 653  C504, 653  C508		2,010,010	022, 024 - 037,			CAE3 - AE6	COMA182KEOL
663 C457, 458 C461, 464 O7, 523, 557, 651, 656 RD1/4PM□□□J C462, 463 C465 C501 C501 C503 C508 C508 C508 C508 C508 C508 C508 C508	663 C457, 651, 656 RD1/4PM□□□J C462, 463 C465 C466 C501 C504, 653 C508 C508 C551, 652 C551, 652		551 - 556	601 - 613, 652, 655			001 - 0010	CONTRIBERSOLL CONTRIBERSOLL
663 07, 523, 557, 651, 656 RD1/4PM□□□J C461, 464 C462 C465 C465 C466 C501 C503 C504, 653 C506, 507 C508 C508 C553 C508 C553 C568 C553 C568 C553	07, 523, 557, 651, 656 RD1/4PM□□□J C461, 464 C462, 463 C465 C466 C501 C504, 653 C506, 507 C508 C551, 552 C553, 554						C457, 458	COMA333J50L
07, 523, 557, 651, 656 RD1/4PM□□□J C461, 464  C465 C465 C501 C503 C504, 653 C506, 507 C508 C551, 552 C553	07, 523, 557, 651, 656 RD1/4PM□□□J C461, 464 C465 C465 C466 C501 C503 C504, 653 C506, 507 C508 C508 C551, 552 C553, 554		658 - 663				C459, 460	CCPSL330J50L
C462, 463 C465 C466 C501 C503 C504, 653 C506, 507 C508 C551, 552 C553, 554	C462, 463 C465 C466 C501 C503 C504, 653 C508 C508 C508 C558 C558 C558 C558		R50 507 F	202 EE7 GE1 GEG	BD1/APMDD1		C461, 464	CEA010M50LS2
463 653 507 552 554	463 653 507 552 554		, , oc , ecn	323, 557, 651, 656	יםם חואו של / ומע			
653 507 552 554	653 507 552 554						C462 463	CEA010M5012
653 507 552 554	653 507 552 554							CEARA7M5012
653 507 552 554	653 507 552 554						(460	010014714010
653 507 552 554	653 507 552 554						C466	CEAR4/M5ULSZ
653 507 552 554	653 507 552 554						C501	ССССН090D50
653 507 552 554	653 507 552 554						C503	CEA331M6R3L2
653 507 552 554	653 507 552 554							
507 552 554	507 552 554						C504, 653	CGCYX103K25
552 554	552 554						C506 507	CKPYB101K501
552 554	552 554						2000	100700000000000000000000000000000000000
							5000	CNUBCZZSNZS
554	554						C551, 552	CKDYB331K50
							C553, 554	CEA010M50LS2

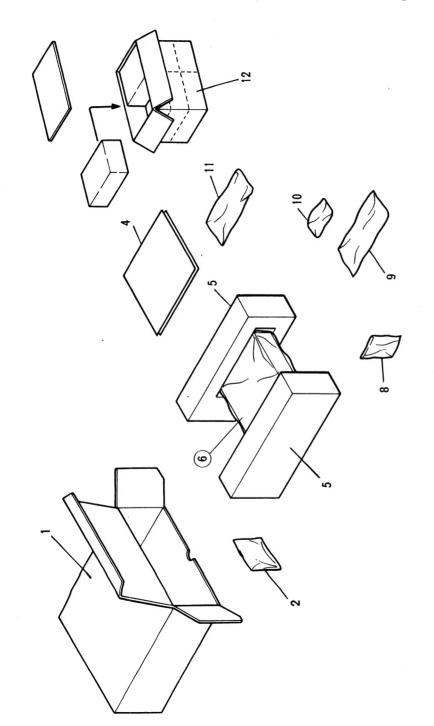
	Symbol & Description	Part No.	Mark	Symbol & Description	)escription	Part No.
Migir		CEA470M1612	*	D501		RD4R7ESB1 or
		CEA470M10L2				MTZ4R7JA
-	C557, 538	CQMA224J50L	*	D504		HZS5R6JB2 or
	C559, 560 C561, 562	CEA102M10L2				RD5R6JSB2
	C564	CEA222M16L2	*	D507	(KE-2222/UC, 2515/US)	US1040M or
	ស ស ស	CQMA154J50L				1SS176 or
	C601, 602	CEA010M50NPLL				155155
	C603, 604	CEA100M25LS	*	D515	(KE-2222/ES)	US1040M or
	C607	CEA221M10L2	C			1SS176 or
	C608, 609					1SS133
	C612 613	CEA100M25LS	*			RD6R8ESB2
	C615	CEA470M16L2	*	D601		RD9R1ESB1
	C617	CEA101M50L2				
	C651	CEA100M25LS	•			EB 0.15.03V
	C652	CEA330M16LS	* 1	D607		MTZ9R1JC or
		CFA470M16LS	K			RD9R1ESB3
	C654 C655	CEAR22M50LS2		17	Ferri-Inductor Ferri-Inductor	CTF-156 CTF-155
						OTE 167
MOTH	MOTHER UNIT			1201	Ferri-Inductor	CTE-002
(KE-22	(KE-2222/UC, ES, 2515/US)			T51	Coil	CTC-198
MISCEL	MISCELLANEOUS			T201	Coil	CTB1011
	Symbol & Description	Part No.		T202	Coil	CTB1012
Mark	Sympol & Description	200	1			CTB1013
	1051	LA11405		T203, 204	i con	CTE1011
* 1	C15   C301	LA1135		T206	Coil	CTE1012
	IC251	M51522AL		T207	Coil	CTB1014
	IC404	AN6540		CF51, 52	Ceramic Filter	CTF-182
	200	PD4073B		CF201	Filter	CTF-240
k +	C5C1	TA7280P		CF202	Ceramic Resonator	CTF-247
	051 52 202 – 204, 601, 602	2SC2458	*	* VR51	Semi-fixed, 330kΩ (B)	CCP-254
t <b>*</b> k		2SA1048 or 2SA933S	* *		VR151 Semi-fixed, 15kΩ (B) VR451/S451 Volume/Switch	CCP-246 CCS1039
*		2SK435 2SC2458 or		<u>.</u>	(TONE, VOLUME/POWER)	900-X33
*	0253, 254 (RE-2318/08)	2SC1740S		CT501	Trimmer	CCG-070
*	0501, 502	2SA1150		X151	Ceramic Resonator, 57kHz CSS1019	4z CSS1019
*		UN4216		2	Vivi A EMIL	0.55-046
+	OE04 FOR 500 511 512 516	2SC2458	+		S501 Switch (9k/10k SELECTOR)	HSH-156
<b>*</b> *	1	UN4216	•		(KE-2222/ES)	
<b>*</b>	0513	2SC3113	*	* S601/VR	S601/VR601 Switch/Volume	CSD1001
*		2SC2498 or 2SC2026			(BAND, MEMO/TONE, BALANCE)	
•		2SC2060 or				
*	Coors	2SD667				
*		2SD1468S				
*	r 0655, 656, 659	2SC1740S				
		US1040M or				
*	* D151 - 153, 201, 202, 203, 203, 203, 203, 203, 203, 203	1SS176 or				
	651 — 656	1SS133				
r 7	★ D207 ★ D251 252 503 509 — 512	US1040 or				
		1S1555 or				
		1S2473				

RESIS	RESISTORS (KE-2222/UC, ES)		Mark	Symbol & Description	Part No.
Mark	Symbol & Description	Part No.		C222 C224	CCCRH180J50 CKPYB102K50L
	R51 – 58, 60 – 69, 151 – 157, 201 – 218, 251, 252, 255 – 262, 461, 462, 501 – 506, 508 – 516,	RD1/4PS□□JL		C226 C228 C251, 252	CEA101M10L2 CCDSL220J50L CKPYB471K50L
	518, 519, 524 – 537, 551 – 556, 601 – 613, 652, 655, 658 – 663 R59, 523, 557, 561, 656 R507 (KE-2222/ES)	RD1/4PMCCCJ RD1/4PMCCCJ			CEANL4R7M35LL CEA470M16LS CGCYX103K25 CGCYX223K25
RESIS	RESISTORS (KE-2515/US)			C261, 262 (KE-2515/US) C263	CGCYX103K25 CEA221M10L2
Mark	Symbol & Description	Part No.		C465	CEAR4/M50L2
		RD1/4PSDDDJL		C466 C467, 468 C501	CEAR4/M50LS2 CEAR15M50LS2 CCCCH090D50
	508 - 520, 524 - 537, 551 - 556, 601 - 613, 642, 655, 658 - 663			C503 C504, 653	CEA331M6R3L2 CGCYX103LK25
	R59, 523, 557, 651, 656	RD1/4PM□□□J		C506, 507 C508 C551, 552	CKPYB101K50L CKDBC223K25 CKDYB331K50
CAPA	CAPACITORS			CEE 3 EE 4	CE ACTOMEDI S2
Mark	Symbol & Description	Part No.		C555, 554 C555, 556, 563	CEA470M16L2
	C1, 51 – 54, 59, 67, 68, 153, 203	CGCYX223K25		C557, 558 C559, 560	CEA101M10L2 CQMA224J50L
	C55, 62	CCCSL330J50		C561, 562	CEA102M10L2
	C55, 63, 131, 218 C57, 201, 213	CGCYX103K25		C564	CEA222M16L2
	C58, 156, 616	CEA010M50LS2		C565	COMA154J50L
	090	CKPYB101K50L		C601, 602 C603, 604	CEA010M50NPLL CEA010M50LS2
	C61	CGCYX223K25		C607	CEA221M10L2
	C64 C65, 204	CEA470M16L2		608 8080	CEA101M10L2
	C152	CGCYX332K25		C612, 613	CEA100M25LS
	C154	CKDBC153K25		C615	CEA470M16L2
	C155	CEA3R3M50LS		C651	CEA100M25LS
	C157 C159, 160	CSZAHZZMI35 CKDBC393K25		C652	CEA330M16LS
	C161	CEA220M16L2		C654	CEA470M16LS
	C205, 208, 211, 212, 214, 215,	CGCYX222K25 CGCYX223K25		0000	CEARZZMBULSZ
	219, 223, 225 C206, 614 C207, 210	CEA010M50LS2 CCDSH070C50L			
	C209 C217 C218 C220 C221	CCPCH010M50L CEA3R3M50L2 CEA4R7M35L2 CCDCH150J50L CQPA511G2A			

Part No.	ESN 1001 HSK-126	oN to	ESH1001			Part No.	EPB1001 EXA1013
SWITCH P.C. BOARD  Mark Symbol & Description	* \$1,2 Switch (MUTE, MOTOR) ESN1001 * \$3 Switch (TAPE/TUNER) HSK-126		Symbol & Description	70 ××	Miscellaneous Parts List	Mark Symbol & Description	** HD1 Head ** M1 Motor
Part No.	CWW1054 FTD-6251H SLR-320PG3KL	CEL1004 or CEL1025			Part No.	CWW1054	SLR-320VR3FKL CEL1004 or CEI 1025
— m	Mark Symbol & Description  ★ LCD (KE-3232/UC, ES)  ★ LCD (KE-3011/US)	* D901 LED (MT) X 40mA * IL901 – 903 Lamp, 14V 40mA		KEY BOARD UNIT	(RE-ZZZZ/OC, EQ, EQ, EQ, EQ, EQ, EQ, EQ, EQ, EQ, EQ	Main	* LCD * D902 (KE-2515/US) ** IL901 – 903 Lamp, 14V 40mA



## 23. PACKING METHOD



Mark	rk No.	Mark No. Part No.	Description	Mark	Š	Mark No. Part No.	Description
	-	. CHG1270	Carton (KE-3232/UC)	*	2-8	★ 2-8 CAA1058	Knob (KE-2515/US)
		CHG1273	Carton (KE-3232/ES)		ď	VACANT	

	<del>-</del>	CHG1270	Carton (KE-3232/UC)	<b>★</b> 2-8	CAA1058	Knob (KE-2515/US)
		CHG1273	Carton (KE-3232/ES)	က်	VACANT	
		CHG1274	Carton (KE-3011/US)	4	CRB1068	Owner's Manual (KE-3011/US)
		CHG1275	Carton (KE-2222/UC)		CRB1069	Owlner's Manual (KE-2515/US)
		CHG1278	Carton (KE-2222/ES)		CRD1080	Owner's Manual
						(KE-3232/ES, 2222/ES)
		CHG1279	Carton (KE-2515/US)			
,	5	CXA1634	Knob Assy (KE-2222/UC, ES)		CRD1124	Owner's Manual (KE-3232/UC.
		CXA1636	Knob Assy (KE-3011/US)			2222/UC)
		CXA1637	Knob Assy (KE-2515/US)	5.	CHP1064	Styrofoam
		CXA1773	Knob Assy (KE-3232/UC, ES)	6.		Polyethylene Bag
				7.	VACANT	
*	2-1.	CAA1011	Knob (KE-3232/UC, ES,			
			2222/UC, ES, 2515/US)	∞i	CNS-962	Cover
*	2-2.	CAA1054	Knob (KE-3232/UC, ES,	6	CEA-550	Accessory Kit (KE-3232/UC, ES,
			2222/UC, ES, 2515/US)			2222/UC, ES, 2515/US)
*	2-3.	CAA1055	Knob (KE-3232/UC, ES,		CEA1196	Accessory Kit (KE-3011/US)
			2222/UC, ES)	9-1.	CDE1289	Cord
	2-4.	CNK-292	Cap (KE-3232/UC, ES,	9-2.	CNV-769	Washer
			2222/UC, ES, 2515/US)	9-3	CNS-722	Cover
*	2-5.	CAA-603	Knob (KE-3011/US)	9-4.	CNC-975	Strap
*	2-6.	CAA1056	Knob (KE-3011/US)	9-5.		Screw Kit
*	2-7.	CAA1083	Knob (KE-3011/US)	9-5-1	9-5-1. CBA-028	Screw for strap

Mark	Š.	No. Part No.	Description	Mark	No.	No. Part No.	Description
	9-5-2.	9-5-2. CBN-028	Nut		11.	11. CXA1629	Panel Assy (KE-3232/UC, ES)
	9-5-3	9-5-3. B20-013	Washer (KE-3011/US)			CXA1631	Panel Assy
	9-5-4	9-5-4. CND-646	Spacer (KE-3232/UC, ES,				(KE-2222/UC, ES, 2515/US)
			2222/UC, ES, 2515/US)			CXA1642	Panel Assy (KE-3011/US)
	9-5-5	9-5-5. NF40FMC	Nut (KE-3232/UC, ES,		11-1.	11-1. CNS1226	Panel (KE-3232/UC, ES)
			2222/UC, ES, 2515/US)				
					11-2.	11-2. CNS1228	Panel
	9-5-6	9-5-6. NF50FMC	Nut (KE-3232/UC, ES,				(KE-2222/UC, ES, 2515/US)
			2222/UC, ES, 2515/US)		11-3.	11-3. CNS1233	Panel (KE-3011/US)
	9-5-7.	9-5-7. CBN1001	Nut (KE-3011/US)		11-4.	11-4. CNG-633	Plate
	9-5-8	9-5-8. CNC1528	Spacer (KE-3011/US)		12.	CHL1270	Contain Box (KE-3232/UC)
	9-5-6	9-5-9. WS40FMC	Washer (KE-3232/US, ES,				
			2222/UC, ES, 2515/US)			CHL1274	Contain Box (KE-3011/US)
						CHL1275	Contain Box (KE-2222/UC)
	9-5-10.	9-5-10. PMB50Y160FMC				CHL1279	Contain Box (KE-2515/US)
	10.	CDE1345	Cord Assy				
			(KE-2222/UC, ES, 2515/US)				
		CDE1419	Cord Assy				
			1011/11/06 03 011/0600 3/1				